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NORTHWEST MEDICINE

January, 1905.

ORIGINAL CONTRIBUTIONS.

THE TECHNIC OF PELVIC OPERATIONS BY VAGINAL SECTION.

By J. RIDDLE GOFFE, PH. M., M. D.,
NEW YORK.

Professor of Gynecology in the New York Polyclinic, Visiting Gynecologist to the City Hospital, etc., etc.

(*Concluded.*)

UTERO-SACRAL LIGAMENTS.—In this connection I might refer to the comparatively new procedure of shortening the utero-sacral ligaments for the relief of retroversion. Your honored president, Dr. Bovee, has resorted to this in a greater number of cases, perhaps, than any other operator, sometimes reaching the ligaments through an abdominal incision and sometimes through a posterior vaginal section. I have used it in connection with shortening of the round ligaments in a number of cases and found it a feasible procedure in cases of proidentia and those in which the vagina is relaxed and the cervix low in the pelvis. I reach the ligaments through the posterior vaginal incision and shorten them by doubling them on themselves as I do the round ligaments. My conviction is that the utero-sacral ligaments are a most important factor in retaining the uterus in its normal position. They are, indeed, the all-important factor. Whether they are shortened and made to perform their normal functional support by direct operation upon them or whether the indirect result of some other operation enables them to involute and recover their tone and sustaining power, certain it is that unless they come to the aid of the other ligaments and hold the cervix high in the hollow of the sacrum, sooner or later the condition of displacement will be reproduced. I regard the utero-sacral ligaments as the most rational structures to utilize for the cure of retrodisplaced uteri, but find it difficult to apply except in selected cases.

Speaking from my own experience, although, like most of us, I have had more or less experience with all the operations that have been suggested for the relief of displacements, I have not found one that has given me such universal satisfaction as shortening of the round ligaments through the vaginal incision. So far as my knowledge goes, I know of but three failures in a series of over 200 cases, and these were due to some departure from the regular procedure in which a modification was attempted. Among the 200 cases, 8 private and 4 charity patients are known to have become pregnant and 10 have gone to full term, pregnancy proceeding most comfortably and satisfactorily, and the uterus retaining its proper position thereafter. Doubtless many others have borne children since the operations but of them I have no knowledge. Of the miscarriages one was in a syphilitic negress, and in the other the cause could not be learned.

In my experience the most frequent cause of retrodisplacement of the uterus is suppurative disease of the appendages, involving from 75 to 80 per cent. of all cases coming under my observation requiring surgical interference for this affection. Because of these complications the Alexander operation, pure and simple, is applicable to an extremely limited number of cases; it becomes necessary, therefore, in order to treat the remaining cases satisfactorily and effectively to open into the peritoneal cavity, and the question is, shall it be done through the abdomen or shall it be done per vaginam? The advantages of the vaginal operation are that the healing process goes on unconsciously to the patient, without any more constitutional or local disturbance than that which attends a simple trachelorrhaphy. The patient is not mindful of having had an incision made, nor does she bear upon her person any trace of a surgical operation. There are no adhesive plasters to be applied, no stitches to be removed, no bandage or supporter to be worn; there is no ugly scar, and there is no danger of a future hernia.

This procedure has its most appropriate application in cases of congenital or acquired retrodisplacement in unmarried women. Among my cases I have 9 of congenital retroversion or flexion in unmarried women, whose ages range from nineteen to twenty-seven years. In these cases, although the vagina was small and the hymen intact in all of them, I was able to perform this operation, and effect a cure. In most of these cases I found it necessary to incise the vagina on one or both sides at the seat of the hymen, extending the incision one or two inches into the canal.

The condition in cases of congenital displacement is rather peculiar. In them the utero-vesical ligament is shortened, the utero-sacral ligaments are lengthened, and the cervix is drawn forward into the axis of the vagina. The anterior vaginal wall, too, is attached low down on the anterior lip of the cervix, thus drawing down the short arm of the lever (the cervix) and throwing the long arm or fundus back into the hollow of the sacrum. The operation through the anterior fornix necessarily severs the utero-vesical ligament at its attachment to the cervix and sets the latter free so that it swings back into the hollow of the sacrum and allows the fundus to come to the front. In these cases, in closing the vaginal incision, after the round ligaments have been shortened, the attachment of the anterior vaginal wall is carried up on the anterior face of the uterus. This brings the pull of the utero-vesical ligaments on the long arm of the lever or the fundus.

Congenital cases of retrodisplacement are notoriously difficult to cure, but with these combined procedures my results have been uniformly successful, all the cases now being under observation for periods ranging from five to two years. These women bear no mark upon their persons of having been submitted to an operation except that the hymen has been destroyed.

MYOMECTOMY.—The trend of gynecologic work in all its departments for the past ten years has been strongly toward conservatism, seeking not only to preserve anatomic structures, but also to conserve physiologic functions. This has nowhere been more conspicuous than in the application of myomectomy in preference to hysterectomy in the treatment of fibroid tumors of the uterus, and the further it is extended the more numerous become the cases in which it is apparent that myomectomy can be applied and the uterus preserved. It has been demonstrated that when tumors are small they can be reached through the vagina, and the advantages of this route of attack secured in their removal. The bed of the tumor requires careful and delicate treatment to avoid hemorrhage and, in my experience, the anterior vaginal incision, in selected cases, offers these advantages to a most satisfactory degree. In many instances I have removed fibroid tumors in this way. If the tumor or tumors are in the anterior wall they are brought into view as the bladder is dissected from the uterus, and removed in succession, the bed of the tumor being closed with a buried catgut suture. If they are at the fundus they are brought into view and reached by lifting the bladder strongly on a retractor, the fundus being gradually brought down into the

vagina as the tumors are removed and the peritoneum closed over their site by Lembert suture. And so the uterus is rotated into the vagina as the work proceeds till the posterior aspect of the uterus is in view and tumors removed, even as low down in the posterior wall as the cervix.

Uterine polypi are as a rule removed *per vias naturales*, but even in cases in which the intrauterine is large and requires morcellation for its removal, the work can be greatly facilitated by performing the anterior vaginal section, thus carrying the bladder high in the pelvis and making room for manipulation. There is no objection under these circumstances to splitting up the anterior uterine wall as far as may be necessary to reach the seat of the growth. After removal the uterus contracts down and can be easily restored to its normal condition. It has been found that the danger of infection from the interior of the uterus, which was formerly thought to be very great in these cases, is of no serious importance, except in cases of sloughing polypi. As an illustration of the innocuousness of the interior of the uterus I might cite the following case. In a myomectomy recently, in which a large tumor was removed from the fundus uteri by abdominal section, I broke through into the uterine cavity and, finding the mucous membrane extensively degenerated, I enucleated the uterus through the opening in the fundus, swabbed it out well, and then carried some gauze down through the cervix into the vagina. There was no infection following the procedure, the patient making one of the most afebrile convalescences that I have ever seen. Dr. McCosh has made cultures of scrapings from the endometrium in a number of cases in which the uterine cavity was entered in myomectomy, but in only one instance did he get any culture, and even that was thought to be an accidental contamination.

Martin, of Germany, is strongly in favor of the vaginal route in dealing with fibroids of the uterus. He insists that the size of the tumor is not in itself a contraindication, since growths of large size can readily be removed *per vaginam* by morcellation. On the other hand, in the presence of firm suprapelvic adhesions, especially intestinal, the abdominal route is preferable; but deep pelvic adhesions and intraligamentary tumors are best handled from below. Martin fears injuries to the bladder and uterus more than he does hemorrhage, especially the former. He has never injured the ureters during vaginal myomectomy, though this accident has frequently occurred in his abdominal operations. When it is possible he enucleates tumors without removing the uterus. In

young women he aims to leave one ovary. During three years he has performed 87 vaginal and 31 abdominal myomectomies. The latter were all complicated, and 6 terminated fatally. Of the vaginal operations 35 were total hysterectomies, with no deaths, and 52 were enucleations, with 2 deaths.

The possibility of dealing with small tumors per vaginam seems to me to change radically the viewpoint in cases of fibroid tumor. Between the waiting policy of those who take the position that an unmarried woman suffering from a fibroid tumor, however insignificant, should not be permitted to marry but that nothing should be done looking to its removal, unless, after months or years of waiting and watching, the tumor shows signs of growth—between this position, I say, and the attitude of those of the radical wing of the profession who insist that in all cases of fibroid tumor of the uterus nothing suffices but prompt and sweeping hysterectomy, we have now a middle ground, which seems to me a golden mean, in which we can say to a woman suffering from a fibroid tumor, “Have it removed at once.” This will not only relieve her present and anticipated troubles, but it will also set her mind at rest. If the tumor or tumors be small, they can be removed per vaginam with the least possible traumatism, danger or discomfort. If the tumors are too large to permit of this procedure, they are amenable to myomectomy by the abdominal incision, radical work of hysterectomy being confined to an extremely limited number of cases, and those usually in women at or beyond the menopause.

STERILITY.—At the recent meeting of the American Medical Association at Saratoga, I presented a paper on vaginal section for the relief of sterility, and christened my paper, “Is It Justifiable to Enter the Peritoneal Cavity Under These Circumstances?” In this paper I took the position that in cases in which the husband has been eliminated as the cause of sterility, the casual factor can be located either in the easily approached condition of ante flexion and endometritis, or in some occluding pathologic condition that prevents the progress of the ovum from the ovary to the uterus. In many instances the latter condition is caused by the most trivial mechanical interference, such as cobweb adhesions surrounding the ovary, or restraining the fimbriae and binding the tubes in tortuous and constricted positions. These conditions are in many instances the result of remote infection from a chronic endometritis, and are frequently impalpable by abdominal manipulation. While I have never felt justified in subjecting a woman to lapar-

otomy in cases complaining simply of sterility, I now deem it entirely justifiable in cases of sterility, after dilating the cervix and evertting the uterus, to open into the pelvis through the anterior vaginal fornix as an exploratory procedure, dealing with the appendages according to the conditions found. I am doing a good deal of such work and with most satisfactory results, three more patients having reported to me this autumn as being eniente. Of course this work can be done through the abdominal incision, but from the standpoint of the patient, the simplicity of the operation per vaginam and its freedom from danger indicate that the vaginal route is the more desirable for the treatment of these conditions.

ECTOPIC PREGNANCY.—Much criticism is always heaped upon the man who dares to propose the vaginal operation for the relief of ectopic pregnancy. And yet after considerable experience with this method in ruptured and unruptured tubal pregnancy it seems to me the most rational and direct route of attack. The difficulties of the situation, as a rule, are not to be compared with those incident to an acute or chronic tubo-ovarian abscess. In the majority of instances there are no adhesions to deal with and there is no infection or pus focus. If the tube is not ruptured its removal per vaginam is about the simplest proposition the gynecologist is called upon to deal with. If the tube is ruptured and active hemorrhage is in progress the main channel supplying the blood—the ovarian artery—is easily reached and controlled, after which the products of conception and the blood clots are removed at leisure. In the great majority of cases active hemorrhage has ceased at the time of operation and all that the surgeon finds necessary to do is to remove the blood clots, and that not very thoroughly, and the products of conception. This can all be done with as great thoroughness through the vagina as through the abdomen, and with as extreme consideration for the appendages of the opposite side.

The latest refinement of a conservative character in dealing with tubal pregnancy consists in shelling out the contents of the oviduct and leaving the tube in situ. The rent may or may not be closed. This is being done in Europe and in this country, and by both the abdominal and the vaginal method. It would seem to need no argument to commend it to all operators. In cases of active hemorrhage the ovarian artery can undoubtedly be reached with greater despatch by the abdominal incision than by the vagina. Moreover, the vaginal method necessitates the lifting of the patient to a table, whereas in desperate cases the abdominal opera-

tion can be done in bed and further loss of blood instantly prevented. But in the less urgent cases the vaginal operation is preferable.

VAGINAL CAESAREAN SECTION.—The latest applications of the vaginal method are vaginal Caesarean section and the reduction of *inversio uteri*. The most recent contribution on the subject of vaginal Caesarean section is the paper of Dr. Stamm, presented at the recent meeting of the American Association of Obstetricians and Gynecologists, in which he reported two successful cases of his own and commented upon sixty reported by other operators. The majority of these were undertaken for cancer of the uterus, but the number performed for puerperal convulsions is increasing rapidly, and this condition will furnish the chief indication for such an operation in the future. He stated that to *Duehrssen*, of Berlin, the credit is due for having introduced this valuable method into practice. The indications for the operation, as given by *Duehrssen*, are: “(1) Abdominal conditions of the cervix and lower segment of the uterus (carcinoma, myoma, rigidity, stenosis, partial pouch-like distention of the lower uterine portion). (2) Dangerous conditions of the mother which may be removed or relieved by prompt emptying the uterus; affections of the heart, lungs and kidneys. (3) Condition of the mother where death is imminent and can be foreseen.” The last two indications have value only in cases in which the cervix is closed and not dilatable, or where the depressing influence of labor pains should be obviated, as in affections of the heart and lungs. In pregnancy complicated with cancer of the uterus *Duehrssen* advocates immediate vaginal section, with subsequent extirpation of the uterus, no matter at what time of pregnancy or at what stage of labor this condition is encountered.

INVERSIO UTERI.—In the vaginal operation for inversion of the uterus we have a procedure that for safety, simplicity and efficiency surpasses all methods that have been suggested. The operation is so rational that the wonder is that it was not the very first procedure to be proposed for the relief of this condition rather than the last. The technic is probably familiar to all: The cervix is seized with traction forceps and dragged down into view, the operator electing whether he will incise the constricting band anteriorly or posteriorly. If the latter, that lip of the cervix is drawn down, allowing the fundus to rotate up behind the symphysis, and an incision made with scissors or knife in the median line extending through the constriction. If the anterior incision is the

one of choice that lip is drawn down and similarly incised. The latter method offers the advantage of being more convenient both for the incision and the final suturing. Each, however, has been used with eminent satisfaction to the operators.

Dr. Reuben Peterson, of Ann Arbor, read a paper on this subject at a recent meeting of the Chicago Gynecological Society and reported a case:

The patient was an American, aged twenty-six, and married three years. Her family and personal history were negative. Her menstruation first appeared at the age of twelve, and up to the time of her present trouble was entirely normal. Her first confinement occurred about fifteen months before her entrance to the hospital. It was an easy labor, and was terminated by forceps, the instruments being applied only about five minutes. The patient did not remember about the delivery of the placenta and felt nothing give way. She flowed very profusely and was given ergot, probably. She stopped flowing soon after the completion of labor, and there was no further hemorrhage until the seventeenth day, at which time she had been up and about the room for a week. Two weeks later she consulted her physician, who told her there was something wrong with the uterus. He made a number of unsuccessful attempts "to fix it." Dr. Peterson saw the patient soon after this. Vaginal examination disclosed a typical inverted uterus, with rather a small fundus, situated about one and a half inches within the introitus. High up in the vagina could be felt the cervical lips, forming a complete collar or rim at the extremity of the uterus. The inverted uterus was grasped with the volsella and pulled forcibly outward and downward. Another volsella caught the anterior vaginal mucosa in the median line just above the anterior lip of the cup and pulled it sharply upward. Through the vaginal mucosa thus made tense, a horizontal incision was made some two and a half inches in length. To avoid opening the bladder, the incision was made as close to the cervix as possible. The vesico-uterine peritoneum was opened, and the cervix exposed. A volsella was placed on the anterior lip to either side of the median line, and the cervix incised between. This incision was carried upward in the anterior median line of the uterus to within one-third inch of the fundus. The inversion was now easily reduced. The fundus going upward and each half of the divided cervix being carried through half the arc of a circle and finally meeting, so that the two halves formed a complete cervix situated downward, not upward. He now adopted the suggestion of Taylor, and removed a wedge-shaped piece of the bulging uterine wall on either side of the incision. This was done to enable retracted edges to come together. The uterine incision was next closed by a continuous catgut suture. The needle was passed from the peritoneal surface down to, but not through the uterine mucosa. There was some gaping in one or two places, in spite of the utmost care to bring together the peritoneal edges.

An unsuccessful attempt was made to close in the spaces by interrupted sutures, but the stitches tore through the uterine wall when much tension was placed upon them. A catgut suture was passed around each round ligament close to the uterus, and each end passed through the anterior vaginal wall and tied, after the fundus was returned within the pelvic cavity. This brought the defective sutured line of incision up against the bladder peritoneum, at the same time giving support to a fundus which had been prolapsed for months.

A few words in reference to the preparation of the patient for vaginal operation and the aftertreatment and I am done.

To prevent unpleasant experiences from movements of the bowels during operation no rectal injections, high or low, are allowed within twelve hours of the operation. For cleaning the intestinal tract three Compound Cathartic Pills U. S. P. are given the day preceding the operation. The instructions to the nurse are: Three compound cathartic pills about two o'clock P. M. (not later). If the bowels move the third time give one-half dr. tinct. opii. camph. and repeat every time the bowels move thereafter. The pills will as a rule produce two or three thorough evacuations before bedtime. In rare instances the catharsis will be excessive unless checked, and for that reason the order is given to check it with paregoric. If no paregoric is required, trional, gr. xv, is administered at bedtime to tranquilize the nerves and produce sleep. If paregoric has been required the trional is not indicated. In no instance where these instructions have been carried out in all details (especially the hour of administration) has any leakage from the bowels given annoyance during the operation.

The vagina is sterilized by vaginal douches of bichlorid solution 1-3000, given twice each day for several days preceding the operation. The day before, the vagina is packed to the degree of slight distention with iodoform gauze, 10 per cent., immersed in and wrung out of hot solution of bichlorid, 1-5000. This is removed by the operator immediately before beginning the operation. The vagina is then douched or swabbed with normal saline solution.

In dressing the case after operation iodoform gauze is used freely. This gauze is 10 per cent. iodoform that has been soaking for weeks in sol. bichlorid, 1-500 (one to five hundred). Upon beginning the operation as much of this as is considered necessary is put to soak in sterile *hot* water and there it remains till required; when it is wrung out as dry as possible and used for drainage or packing or both as indicated. The excess of iodoform and of the bichlorid is washed out by this process and a safe gauze that is

not only aseptic but antiseptic is the result. In all cases of hysterectomy the vaginal incision is left open and gauze packed into the pelvis, carrying the intestines up beyond any possibility of contact with the broad ligament stumps. If extensive adhesions between the intestines and the uterus and appendages have been severed or the pelvis has been stripped of peritoneum, the gauze is placed in contact with the denuded surfaces and the pelvis packed full of gauze, carrying the intestines up out of the pelvis. The gauze is packed in one long strip. The presence of this gauze stimulates a profuse outpour of serum which washes down on the gauze any



Fig. 6. The Fowler position for pelvic drainage.

debris or sepsis, where it is disinfected and drained away by the gauze.

There is no more perfect drain for the pelvis or peritoneal cavity. This gauze is left undisturbed, if all goes well, till the fourth day, when a beginning of its withdrawal is made. From four to six inches of gauze is drawn out each day, the protruding amount being cut off at the vulva and the proximal end returned to the vagina. In the meantime, vaginal douches of boracic acid, saturated solution, are given twice each day. This solution is carried

up by the capillary attraction of the gauze, dissolves any adhesions that may have formed and sets the gauze free. The last of the gauze comes away usually on the seventh or eighth day. The gauze being in one continuous strip there is no danger of any stray piece being left and this entire aftertreatment is done by the nurse without removing the patient from the bed. As the gauze is being thus gradually drawn out the intestines, the head of the vagina and the surrounding parts gradually settle down to their normal positions and when the last of it comes away the head of the vagina collapses and entrance to the pelvic cavity is sealed. The presence of this gauze in the pelvis drains away all infection and renders the surface aseptic. The plastic exudate that may be thrown out, unless infected, is reabsorbed and no permanent adhesions remain.

In all cases requiring the most complete drainage obtainable the patients, on being put to bed, are at once placed in the Flower position as shown in the diagram. This favors drainage by gravity and is a life-saving device in cases of acute infection. Two of the patients shown in the cut are those whose histories have been recited in this article—cases of acute pelvic infection.

I have not gone into the minute details of all these various procedures, nor have I burdened you with long reports of cases, my effort being simply to present, as it were, a birdseye view of the possibilities and the technic of pelvic work along the vaginal route.

On general principles, I believe all of us are ready to subscribe to the dictum that so far as the patient is concerned any operation that can be as well done through the vagina as through the abdominal incision is better done along the vaginal route. The possibilities of this will undoubtedly vary with individual experience, but the more experience I have, the broader becomes the field of application, until it seems to me that any pathologic condition that is confined to the true pelvis can be dealt with as satisfactorily, with as permanent results and with far greater safety to the patient through the vaginal than through the abdominal incision. My cases have embraced every variety of disease from simple retroversion with or without adhesions to prolapsed and cystic ovaries, unilateral and bilateral salpingitis, ectopic gestation, fibroid tumors of the uterus and dermoid cysts. The method lends itself to every form of conservative work upon the uterus and its appendages that has been suggested in the trend of recent modern gynecology. The successful application of it requires patience, experience and skill, but when once the profession has been convinced of its superiority I believe it will steadily and rapidly grow in favor and become the accepted method for the man who practises the specialty of gynecology.

PERIODIC HEADACHE.*

By R. W. PERRY, M. D.

SEATTLE, WASH.

Periodic headache is a disease of unknown pathology, doubtful etiology, but very positive sensory and motor symptoms. The sensory symptoms, which are usually right sided, are, first those of sight. positive, substitutionary, or irritative, and consist of definite spectra. Negative, or inhibitory, consisting of localized blurring in the field of vision.

Second, those of touch and taste, positive or irritative in the sense of tingling and the metallic taste, and negative in the numbness and anesthesia. This sense of numbness and tingling, which follows the eye symptom, commences usually in the fingers or foot of the right side, passing upward and involving the shoulder, face and half the tongue. Rarely with this there is loss of power, like transient hemiplegia and also loss of the power of articulation.

Thirdly, there is an affection of the sense of hearing, positive in the noises heard, and negative in the deafness produced. There are also disturbances of muscular sense seen in the vertigo and diplopia and faulty articulation and manipulation. Following these, and lasting for a variable time, is the headache, a sense of pain, generally unilateral and right sided, occasionally bilateral and confined almost entirely to the ophthalmic branch of the fifth nerve.

Finally, a sense of nausea, followed by the motor action of vomiting, referable to irritation of the pneumogastric, complete the sensory and motor symptoms. Rarely consciousness is disturbed by impaired memory, confusion of ideas and hallucinations.

In the collection of sensory disturbances, the first and most unique are those referable to the eye. These sensations are crude and low in the scale of sensory impressions, in that the spectra, although definite and prolonged, do not show any faces or figures. These symptoms are present in one-half to two-thirds of the cases, and in many cases where the patient wakes in the morning with the attack already on, it is possible that they have already transpired while the patient was asleep.

The inhibitory symptoms consist in a local blurring in part of the field of vision and described by the patient variably as "shaded

*Read before the Washington State Medical Association. Seattle, Wash., July 12-14, 1904.

darkness," "blank whiteness," "the cloud," "the mist," etc. At times this may commence centrally, when possibly the patient is unable to see the central letters of a word. This spreads in a centrifugal manner towards one side of the field, the central part clearing as the periphery becomes involved, and giving the patient the sensation of looking through a tube.

Again, the blurring may consist in a form of half vision, in which the patient is unable to see half of the word, or unable to see a person walking beside him. Sometimes is seen a unique form of half a vision in which the upper, or lower half of the field of vision is clouded.

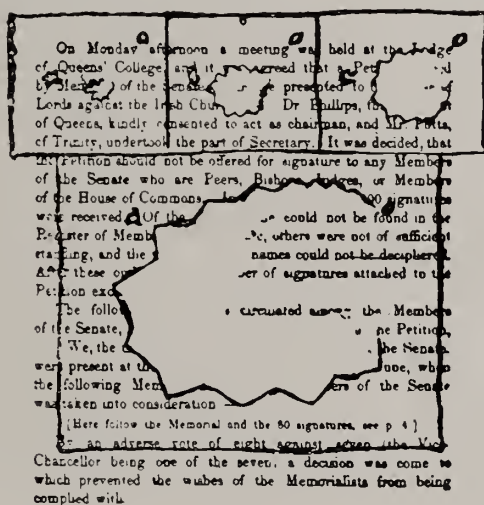


Fig. 1.

This represents the observation of the print of a newspaper during the development of the spectrum. The luminous zig-zag is represented by the black line.—(From Gower's Clinical Lectures.)

The positive or substitutionary symptoms consist in spectral appearances, varying from a simple luminous border, to the expanding cloud above mentioned, to the definite and oft described fortification spectrum. In this a luminous spectrum surrounds the dark expanding area with an alternate, colored red, blue and yellow short lines, forming angles much as a snake fence may partially enclose a circular field, the expansion being always in one direction, away from the point of central vision, which is always at the edge. This condition is illustrated in Figs. 1 and 2. There are other forms described in which the spectra may be either within the blurred area or entirely apart from it, sometimes, both entirely one sided, and sometimes both central.

The above symptoms occur in all stages from those in which a

slight spectrum is the only symptom, to those which have the full quota.

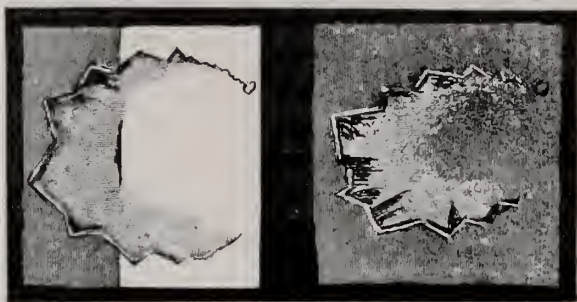


Fig. 2.

Expanding spectrum seen against a dark background, and also half against a light window. The luminosity within the spectrum is seen to be dark, when viewed against the light.—(From Gower's Clinical Lectures.)

The examination of the fundus of the eye in these cases is at all times entirely negative, and the optic papilla, "the farthest outpost of cerebral circulation," shows no vascular changes.

In many a family tree there is a neurotic root, in the development of which we find gout, rheumatism, alcohol and nerve exhaustion prominent features, with epilepsy, chorea and periodic headache as alternating products in the various branches, or, as in a case I saw recently, all of them found in the one unfortunate branch.

The disease is found in all stages of intensity. The most malignant form commences early in life, five to eight years of age; the paroxysms are very severe and frequent, being weekly or oftener, and the heredity is generally clearly traced. Often these cases last throughout life, unaffected by any treatment and decline with advancing years. The morbid tendency in itself is sufficient to keep up the attacks continuously.

Half way down the scale of intensity we come to a stage in which the disease proper passes from a manifest, to a latent condition, requiring then some auxiliary cause to make it manifest.

It is these cases that are curable, for, by removing the auxiliary cause, the disease is again made latent. Among the chief causes are found nerve exhaustion and auto-intoxication, assisted, possibly, by a congenital enlargement of the vascular supply to the brain.

Dr. Parry's view, that vascular dilation was the cause of not only megrim but epilepsy, was due to his ability in many cases to lessen the severity of the attacks, or abort them by pressure on the carotids. He first discovered this in his own case.

The law that, "In proportion as the nutritive and negative functions are feeble and languishing, nervous phenomena are mobile, exalted and irregular," shows the probable place of nerve exhaustion in this disease. Nervous instability and vasomotor irregularity, no doubt, make manifest nerve storms that would otherwise not occur. The neurasthenic, in whose wrinkled face lies the evidence of hours spent in holding open the floodgates of nervous energy, is always a possible victim. "Neurasthenic mothers, megrimous children, epileptic grandchildren." The patients should be taught the rules of the conservation of nervous energy, and that most of the expenditure is under command of their own will, that by limiting the work and worry and practising the habit of relaxation, they may be taught to keep on hand always a surplus to avoid nervous bankruptcy, and so enjoy the blessings of a stable nervous system.

In this connection, one of the most frequent avenues for the continuous expenditure of nerve energy, is in the errors of ocular refraction and ocular muscle imbalance.

A normal eye is at rest for all vision of twenty feet and beyond, while the hypermetropic eye requires the use of the muscles of accommodation in distant as well as close vision.

Place before the camera a quarter dipoter cylindrical lense and the blurred photograph produced gives an idea of the amount of continuous work thrown on the muscle of accommodation to produce a clear image.

In some patients, the use of eserine to contract the pupil after dilation by homatropin reduces headache accompanied by a sense of nausea. An examination with the phorometer, in which the strength of each of the external ocular muscles is tried, will frequently precipitate a headache, in one predisposed.

The continuous striving of these miniature muscles to produce binocular vision in eyes which at rest diverge or converge, changes the action from a limited normal one to a continuous and exaggerated one, with all the consequent nerve exhaustion and reflex symptoms.

This, then, is a fruitful source, not only for the waste of nerve energy, but also, many other possible reflex conditions.

The other most prominent auxiliary cause is auto-intoxication, alimentary, and renal. Cases without number are on record where the patient declares that the cause in precipitating an attack is some article of diet,—butter, fats, malt liquors and eggs being chief offenders, with butter, or "battered toast" especially frequent.

Leiving says that the occasional influence of gastric or intestinal irritation cannot be denied, but the principal cause of the malady is a morbid tendency, deep-rooted in the nervous system, and the gastric disorder one among many occasional or determining causes of the seizures. The irritant is possibly putressin or cadaverin, ptomains formed as the result of bacterial action on proteid food. Constipation, or inertia of the bowel must be a feature here, as it requires more than one day for their formation. Lewis Chapman says that it is proven by actual experiment that megrim is caused by a number of auto-toxins, uric acid, parazanthin, butyric acid, and in cases where eggs are eaten, by cholin, which seems to have a selective action on the nervous system.

Possibly the most prominent of all these is uric acid. Most of what we are told of uric acid, we learn from the excellent work of Haig, who has made it his life-study, prompted by the early recognition of the fact that a uric acid-free diet cured his megrim. He says that on giving up butcher's meat, his headaches fell from one a week to one in eighteen months. He finds on microscopic examination of the blood, using chloride of ammonia as a precipitant, minute granules which always have a definite quantitative relation to the amount of uric acid in the blood. These uric acid granules, whose excess clog and slow the capillary circulation, form what he calls "collemia," with consequent slowing of the circulation, high blood pressure, cold extremities, headache, and depression. He says that his power over the uric acid headache and the circulation conditions that cause it, is now little, if anything short of absolute.

The administration of salicylate of soda or phosphate of soda in an alkaline medium, causes the passage of uric acid from the tissues to the blood, with consequent high blood pressure and headache. The administration of opium, or an acid, causes the uric acid to be thrown from the blood to the usually less vascular and consequently less alkaline joints, where it is immediately recognized by the rheumatic pains felt there, while the blood pressure falls, and headache is relieved.

It may be said, however, that there are some, notably among whom is Woods Hutchinson, who think uric acid the result and not the cause of disease.

BIBLIOGRAPHY

Gowers.
 Lieving.
 Haig.
 Chapman.

INJURIES OF THE SPINE WITH REPORT OF A CASE* .

By W. C. Cox, M. D.

EVERETT, WASH.

In dealing with injuries of the spine, I shall go into details only so far as it is necessary to determine the nature of the injury. If a complete transverse lesion is above the fourth cervical vertebra, death occurs almost at once, therefore it is unnecessary to discuss injuries of that kind. If the injury is between the fourth cervical and first dorsal, there will be more or less paralysis in region of chest and arms. But if below the first dorsal, only the lower extremities will be involved. In lesions of this character, the first things to be determined are the nature of the accident, the level of the lesion, and as to whether or not the lesion is partial or complete. If there is a dislocation of the vertebra, this can usually be determined by deformity, tenderness, abnormal mobility and crepitus. The level of the lesion can usually be determined by motor or sensory paralysis, which may be partial or complete. If the lesion is complete, there will be paralysis of sensation and motion, with retention, and later incontinence of urine and feces. Cystitis of urinary bladder, bed-sores and sloughing of skin on dependant parts will follow early.

Prognosis. All cases are more or less grave. The nearer the lesion approaches the medulla oblongata, the more serious does the outlook become. Patients with fractures of the lower dorsal and lumbar region usually die within a few months with cystitis, exhaustion, etc.

Treatment. The object of treatment is to relieve the cord and immobilize the fracture. If a complete transverse lesion has occurred, the paralysis is sudden and complete, and operation will avail nothing. If, however, there is only a partial injury to the cord, some time will elapse before the symptoms come on, and, in that case, an operation will likely relieve the patient.

At a recent meeting of the International Association of Railway Surgeons, when discussing a similar subject, Dr. W. S. Hoye, of Ohio, called the attention of the Association to a new symptom, that of the arching of the sole of the foot. In such cases he has never seen an operation do any good. He also says that shock is not a contraindication to an operation to relieve an injury of the spine.

*Read before the Washington State Medical Association. Seattle, Wash., July 12-14, 1902.

Operations for any spinal lesion should be immediate to prevent injury or softening of the cord, which may occur within forty-eight hours. Immobilization of the parts by a plaster paris jacket is, perhaps, the best and most convenient for ordinary cases. Operative interference, then, may be summarized as follows: In all partial lesions, an operation should be made at once. In fracture of the lamina and spine, operation is demanded. In all complete transverse lesions of the cord, operation is contraindicated and the injury should be treated expectantly.

REPORT OF CASE.

C. L., age 39. Occupation, bridge carpenter. Employe of the N. P. Ry. Injured July 9, 1903. While assisting to remove some false work from a bridge, some of the heavy timbers fell upon him, crushing him to the ground in a forward direction, thereby producing a dislocation of the 9th dorsal vertebra, with fracture of the second and third ribs, near sternum, left side. He was immediately taken to the Everett Hospital where the nature of the injury was determined, an anesthetic given, and an attempt made, by the assistance of two men, to reduce the dislocation by extension and counter extension, while the writer endeavored by manipulation to aid the reduction, in which he was partially successful. But some deformities remained, in spite of all that he could do. A thick pad was applied over the region of the injury and a snug roller bandage applied to the chest. There was entire paralysis of the lower extremities, except that he could make a very slight movement with the left great toe. There was also slight sensation in that region. He was unable to void his urine for a period of seven days, after which, until the fourteenth day, he had no difficulty. But on that date he was again unable to pass urine, and it was not until the twenty-eighth day after the injury that he was able to urinate without the use of the catheter. Bowels did not move at any time voluntarily until the fortieth day. During the first three weeks after his accident, he suffered more or less pain in the region of the injury, and through the hips, and it was found necessary to occasionally give him small doses of morphia. After three weeks, however, he was able to endure the pain without an anodyne. Improvement in motion and sensation began on the third day, and he improved more or less steadily, until he left the hospital. At the end of five weeks he was able to sit up in bed by assistance.

During the seventh week he was able to walk a little by means of crutches. At the end of two months, from the date of his injury, he was removed to the Company Hospital in Tacoma, since which time I have not seen him, but he could walk a short distance at that time by the assistance of crutches. During his entire illness his temperature did not rise above 99.8°, but generally it ranged around 99°.

On the 7th of the present month I received a letter from him giving details of his present condition which are as follows:

He says, "I am unable to walk without the assistance of two canes; my legs are paralyzed to some extent, particularly below the knees, and I have to drag the left leg behind me when walking. Have been unable to perform any kind of labor since my injury. There is still a pronounced curvature of my spine at point of injury, and I suffer pain continually, especially at night, the most pain being in the region of injury. Also suffer pain in side, in region where the ribs were fractured. In order to walk I am obliged to wear a stiff jacket."

I intended to apply a plaster paris jacket in a few days after the injury, but owing to the fact that pressure gave him more or less pain, also to the fact that his improvement began almost at once, I thought it best to leave well enough alone. But I told him, when he left the hospital, I was sure a plaster paris jacket would be necessary sooner or later. He improved so rapidly for the first two months that I thought he would be practically well at the end of a year. I know nothing about the treatment since he left the Everett Hospital. An operation might have relieved this patient while, on the other hand, authorities say do not operate when improvement is steady.

THE ELECTRICAL TREATMENT OF CHRONIC CONSTIPATION.*

By J. R. HARVEY, M. D.
SUNNYSIDE, WASH.

Possibly the subject of chronic constipation may seem very tame for a State Medical Association but I will warrant there is not a physician in the state who has not failed to cure a great percentage of his constipated patients. It is true any tyro in the practice of medicine can prescribe a cathartic that will clean the alimentary tract from top to bottom and make the patient think his intestine is about five hundred feet long. Does that cure? Not often.

I believe that, in the therapeutic use of electricity, we have a remedy that will cure. With this remedy, which I have used in several cases, I have had but one failure and in that I did not have a fair chance. I use either the Galvanic or Static electricity. If the Galvanic, I use about fifteen to twenty milliamperes, interrupted about one hundred times per minute, as follows: Two small hand sponge electrodes, wet and well soaped, are placed

*Read before the Washington State Medical Association, Seattle, Wash., July 12-14, 1904.

about three inches apart over the colon and moved in the direction of the passage of the fecal matter. This is continued for five minutes. Then the positive sponge is placed over the liver for two and one-half minutes, with the negative mobile as before. Then the positive is changed to the region of the stomach for two and one-half minutes and negative same as before. This makes a treatment of ten minutes which wonderfully increases the tone of the abdominal muscles, and usually relieves the chronic constipation.

If I use the State machine, I employ the surging current which is administered as follows: The patient sitting upon the side of the chair on the insulated platform, I insert into the anus an electrode with metallic surface and so made that it is grasped and held in position by the sphincter: The jars on, switch on spark, patient attached to positive pole and negative pole grounded. Prime conductors are gradually separated until they are from six to eight inches apart. The speed of the machine should be so regulated as to give from one hundred to one hundred and twenty sparks per minute.

I wish only to cite three cases, the first apparently severe, not having had a passage without taking an active cathartic for twenty years. This case was treated with Galvanic electricity.

First treatment March 16, 1903; second, March 17; third, April 30; fourth, May 4. This patient was in the habit of taking regularly a cathartic every other night. Her bowels moved in the morning following the first treatment. After the second treatment, she failed to return to the office for forty-four days, in which time she would have taken twenty-two doses of cathartic medicine. The fact that she had only taken three doses shows that she had improved from the first treatment. I saw her husband a few days ago and he said that she was still all right.

The second case I wish to report was not of so long standing and apparently not so severe but proved to be very obstinate to treatment. In fact, seven Galvanic treatments did him no good. Then I changed to the Static machine and the results have proved very satisfactory. He has been under treatment for about nine months and in all has taken about thirty Static treatments, and considers himself cured. This case simply illustrates the fact that you need to suit the treatment to the case the same as with other drugs.

The third case is that of a lady, about twenty years of age, who had, so far as she knew, been constipated all her life. She wanted to leave for California in a few days so I had a very short time to

treat her. I first tried the Galvanic electricity but failed to get results so changed to Static. I gave a Galvanic treatment Feb, 24, 26, 28, and March 1. Then for the following ten days, I gave her a Static treatment each day. I had a letter from this patient a short time ago stating she was all right.

The technic of this treatment is very simple but at the same time important. The *modus operandi* is another question. The object of the ordinary treatment of constipation is to overcome the atonic condition of the muscular coat of the alimentary canal. We have been taught to believe if we could do this, we could cure the case. When we do cure, ought we not to believe that our remedy has acted upon the muscular coat?

That electricity does cure chronic constipation, we are certain and I believe it is by its action upon the muscular coat of the alimentary canal.

CLINICAL REPORT.

A LARGE CERVICAL FIBROID.

By CLARENCE A. SMITH, M. D.
SEATTLE, WASH.

Mrs. F., widow, age 47 years, school teacher, weight 220 lbs, Menstruation regular. Early in June, 1904, she had a violent uterine hemorrhage of about six hours duration. Previously she had exhibited no uterine symptoms. Two weeks later she had another less severe and in ten days a third that continued eight hours, leaving her unconscious and blanched. Her physician, Dr. M. E. A. McKechnie, called me in consultation.

The patient's color was white and pasty, mucous membranes pale, a murmur at base of heart. Blood examination gave hemoglobin, 30 per cent; reds 3,860,000; whites 10,000. The uterine cavity was 13 cm. deep. Anterior lip thin; in the posterior was a large, hard tumor that partly filled the vagina. It was freely movable. The patient was kept in bed for a week and given iron, arsenic and ergot, when the hemoglobin had risen to 50 per cent. An abdominal hysterectomy was then performed, the patient making an uneventful recovery. The following day the hemoglobin was 35 per cent. On a liberal diet, with iron and arsenic, it rose to 50 per cent in two weeks; to 75 per cent in another two weeks and, a month later, was 95 per cent.

The specimen shows the fibroid situated in the cervix. The external measurements are 14x8x7 cm. The tumor is entirely in the posterior wall, extending lower than the os which appears on its anterior surface, a little distance above its lower end. The anterior cervical wall is of normal thickness. The fundus measures 3 cm. to the top of the fibroid, leaving 11 cm. as the length of the tumor. It is rather surprising that the tumor could have grown to this size without hemorrhage

or other symptom to indicate its presence till this excessive flowing appeared.



Fibroid of the Cervix. (Reduced one-third.)

A CASE OF NEURASTHENIA FOLLOWING APPENDECTOMY.

By A. O. LOE, M. D.

SEATTLE, WASH.

Patient, male, age 26, farmer, single, fairly well nourished; heart, lungs and kidneys normal, previous history good. Had never had any disease except what he terms "colic," lasting from a few hours to several days, sometimes abdomen remaining tender for several weeks.

When I called to see him, he had been sick in bed about a week, without medical attendance. The pain at this time was more severe than in previous attacks. His pulse was 120, temperature 103°, had vomited several times, tongue coated, abdominal muscles rigid, especially the right side. Dullness and a distinct tumor in the right groin. I sent him to the hospital, where Dr. Eagleson and myself opened a large appendiceal abscess, which was drained. The appendix was not removed.

He made an uneventful recovery, but shortly afterward returned, complaining of excruciating pain in the region of the appendix; would scarcely allow me to touch his abdomen; claimed he could neither eat nor sleep, and said he never had so much pain before. I always found his pulse and temperature normal, so concluded the pain must be due to adhesions, and ordered massage and counter irritation. This made it still worse. I consulted with Dr. Eagleson and we decided to operate on him again, for the purpose of breaking up the numerous adhesions, which we concluded were giving him trouble. To our surprise we found very few. The appendix was bound down to the cecum; this was shelled out of its peritoneal covering and removed.

The patient made a prompt recovery, but the pain soon returned; he called on me almost daily, and certainly was a poor advertisement for my office. It seemed strange, however, that he could suffer so much, eat and sleep so little as he claimed, and still appear so robust. I began to suspect the pains were not quite as he reported them, and one day, made a few of the common tests to detect shamming. I found the very painful spots were not painful in the least when his mind was diverted to something else. I made this test several times so as to be quite certain. He had been getting an abundance of sympathy and "goodies" from his parents and neighbors, which might have served as an object. I advised him to go to work and he has been farming since. He occasionally claims to have his old pain, but is apparently in excellent health.

This case demonstrated the wonderful way in which nature takes care of, or absorbs inflammatory adhesions in the abdominal cavity. Here we had a pus focus shut off from the general abdominal cavity by a localized peritonitis, the coils of intestines and parietal peritoneum being firmly matted together, and at the second operation almost completely absorbed.

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CLARENCE A. SMITH, A. B., M. D.

Editor in Chief.

JAMES B. EAGLESON, M. D.

Managing Editor.

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NO. 1

THE OUTLOOK FOR THE NEW YEAR.

We take this opportunity to wish a Happy New Year to all of our readers and friends. May they experience a year of health, prosperity and pleasure! At the end of two years of existence we have feelings of satisfaction on reviewing the past and favorable expectations for the future. While we have not attained all that we hoped for during this period, we have yet had many pleasing proofs that our efforts to present a first class, ethical journal have been appreciated by our constituents. During the past year we have received a much larger amount of literary material than during the previous year, and of a superior quality. The outlook is promising in this line for the future. Our financial prosperity depends upon the income from advertisements and subscriptions. While we have grown in each of these respects we need a greater increase in both and confidently look for it during the coming year. Our aim is to serve as a means of communication between the physicians of the Northwest, a purpose that can be fulfilled only by a local journal. To accomplish this end we feel that the support of the profession from all sections is due us.

The medical profession has never grown in the Northwest with the rapidity that is being displayed at the present time. The number of applicants before the Washington Examining Board last year, 185, is altogether out of proportion to the population of the state as compared with the record of other states. An even greater number may be anticipated for the coming year. The best interests of our profession will be conserved by uniting these newcomers with

the old practitioners, into strong county societies, thereby building up the State Association. We would, at this early date, urge upon the different county societies the desirability of enrolling all the eligible practitioners as soon as possible so that, at the next session of the State Association, its membership may present a gratifying increase, somewhat commensurate with the number of physicians within our borders.

The work done by our state and county societies ought to improve in quantity and quality with the passing years, owing to the accession of wideawake members, fresh from the latest studies of scientific medicine. Their presence is always a stimulus to the older practitioners to do their best, thus uniting experience with the latest of theory and experiment to produce the best in medicine.

MEDICAL LEGISLATION.

During the coming biennial session of the Legislature numerous bills will undoubtedly be introduced affecting the medical profession either directly or indirectly. Fortunately, we have a good sized representation of physicians, four in the Senate and five in the House, who can be trusted to scrutinize legislation and exert a powerful influence for that which is good and against that which is evil.

First of all will be the bills affecting the Medical Practice Act. We are informed that a systematic campaign has been under way for some time by those interested in the passage of a bill to license practitioners of osteopathy. They have made strenuous efforts to impress the legislators with the importance of their "school," and hope to obtain the appointment of a special examining board for their benefit. It is now proposed to meet them half way and, since these people claim to be proficient in certain branches necessary for the practice of medicine, that they be regularly examined in them by the present Medical Examining Board and, if they pass a certain required standard, that they be licensed to practice osteopathy. In order to meet the standard of learning in their own new and peculiar doctrines, it is suggested that an osteopath be appointed on the Board. In that case he would have equal voice with the other members in issuing licenses to all applicants appearing before them. What an anomalous situation this would present—an examiner entitled to pass judgment on the qualifications of applicants who have been examined in subjects of which he claims to have no knowledge! Another suggestion is that they appear before the Board as now constituted and be licensed, after examina-

tion on certain branches, the "Theory and Practice of Osteopathy" being ignored, we presume, on the assumption that all are proficient in this branch of science who make the claim. We do not, at this time, assume to designate the preferable solution of this problem, but wish to urge upon our readers to study all bills bearing on this matter and to influence their Senators and Representatives to kill legislation establishing a separate examining board.

Thus far in our history many things have been neglected in the line of sanitary legislation that are essential to the maintainance of the public health. At present no statutes exist that offer any protection to streams that must be utilized for water supplies. With the growth of the population the preservation of these sources from pollution will be a necessity. An essential feature of this problem is the disposal of sewage, concerning which no legislation has as yet been enacted. The State Board of Health has these matters under consideration and will foster the introduction of suitable bills to regulate them.

The matter of vital statistics is at present in a very chaotic condition. There is a law requiring the filing of death returns with the county auditor before the fifteenth day of the following month. This is practically a dead letter because of no state law requiring burial permits before interment. These are controlled by city ordinances which, in the past, have been required only in the cities of Seattle, Tacoma, Spokane, Everett, Walla Walla and North Yakima. Accordingly, for the year ending October, 1903, a curious record is found with the State Board of Health. The counties of Whitman, Whateom and Yakima have about the same population. Yet the numbers of deaths reported from each were, respectively, 28, 86 and 251, only the last of which can be considered of any value, since North Yakima was the only city in these counties requiring the obtaining of burial permits. It is proposed to remedy this condition by the designation, in each county, of a suitable official from whom such permits must be obtained, preferably the county health officer.

Birth returns are notoriously inaccurate in every state. We have a state law requiring their reports, supplemented by local city ordinances, yet only a portion are reported. It is said that they are returned with a proportionately greater accuracy from the country districts than from the cities. Whether legislation can be enacted that will enforce accurate reports remains to be seen. Thus far this result has not been obtained. Bills to cover these matters will be introduced, and we trust these faults may be corrected.

MEDICAL NOTES.

Biennial Report of Washington State Board of Health.—This has been issued by Secretary Heg and is a voluminous document, dealing with many matters of interest to the medical profession. It presents a summary of the laws of the State and local Boards of Health. Results are recorded of the appointments of county health officers, in accordance with the Act that became effective June 10, 1903. Prior to that reports were made by only 4 counties; now returns are made by 36 county health officers, all being qualified physicians. Formerly contagious diseases were irregularly and inaccurately reported and then only in case of epidemics. Now practically the whole state reports monthly.

Small pox has shown a marked decrease during the past year, the first three quarters of 1903 bringing reports of 789 cases against 281 for 1904. Under scarlet fever have been reported 109 more cases during the first half of 1904 than 1903, though they were incomplete for the latter year. Mild cases and short quarantine have made suppression of the disease difficult. Diphtheria has presented an apparently large increase on account of incomplete returns during 1903 and partly in consequence of county health officers discovering cases, when investigating sources of contagion and recognizing cases usually termed "sore throât." Special note is made of the decrease of deaths from typhoid at North Yakima, from 17 in 1903 to 7 in 1904, due to efforts on the part of the Board of Health. Tuberculosis is practically unreported, except cases of deaths, in spite of state laws and city ordinances requiring them.

The report recommends increased appropriations for work of the Board, and especially for the support of a State laboratory. Amendments are recommended to the County Board of Health Act; also legislation concerning supervision of water supplies, disposal of sewage and vital statistics.

Adequate Preparations for the A. M. A. at Portland.—Everything points to abundant and successful accomodations for the July meeting at Portland. It is a satisfaction to have this matter early determined since the chief objection to coming West has been, from the first, a fear that the guests could not be housed nor halls be provided for the sections. It is announced that already provision has been made for 5,000 visitors and steps have been taken to increase this to meet all probable demands. The profession of Oregon is awake to the demands for entertaining and providing for the delegations from every section of the land. It will call for contributions of money from many interested individuals. It has been suggested that those of us who have hitherto been accustomed to make an annual pilgrimage East, to attend the meetings of the A. M. A., should this year divert to the entertainment fund at Portland a sum equal to that usually expended in this manner, the proximity of this year's meeting calling for a much less outlay. Since the profession of Washington is about as much interested in the success of this meeting as that of Oregon, it will be

a considerate and just act to contribute as liberally as possible to the expense fund. The profession of the whole Northwest is interested in making this western meeting a great success.

The meeting of the State Medical Association for 1905.—It has been suggested that, since the American Medical Association was to appear almost in our midst this year, that the usual session of the Washington Association be passed, its place being taken merely by a business session. It was feared that the members would not attend two medical gatherings in one year, in goodly numbers. The Committee of Arrangements, however, has decided to hold the usual meeting next fall, at a date to be later determined. This seems a wise decision. We believe the omission of this year's meeting would cause a diminished interest in the State Association that we can not afford to experience at this period of our history. All the interest and enthusiasm that can be enlisted is needed to make this Association one of life and success. It is hoped that new activity and energy will be reflected in the members from the influence of the greater meeting of the American Medical Association. The Committee of Arrangements, as appointed by President Quevli, of the Pierce County Society, consists of the following gentlemen from Tacoma, in addition to himself: E. M. Brown, G. A. Libbey, A. de Y. Green, G. C. Hicks, C. Balabanoff, J. R. Brown.

Physicians in the Washington Legislature.—It is well for the physicians of the state to keep in mind the fact that they have a large representation in the Legislature which convenes this month. While they may be depended upon to guard medical legislation, it is incumbent on every physician to exert his influence with the members from his district to prevent legislation inimical to the profession. Physicians in the Senate are the following: J. I. Pogue, Alma; J. J. Smith, Enumclaw; G. B. Wilson, Pullman; C. G. Brown, Spokane. Those in the House are as follows: H. C. Fulton, Asotin; S. W. Roberts and J. H. Sheets, Fairfax; G. T. Doolittle, Spokane; C. W. Keyes, Sumas.

The Washington Examining Board.—The winter session was for the first time held at Spokane, on the 3d, 4th and 5th of this month. The class was a large one as has been true for several years. The personnel of the Board is at present constituted as follows: H. A. Wright, Vice-President, Wilbur; C. W. Sharples, Secretary, J. B. Eagleson, Seattle; E. D. Olmstead, C. S. Kalb, Spokane; P. B. Swearingen, Tacoma; A. E. Stuht, Colfax; E. E. Shaw, Walla Walla; G. W. Overmeyer, South Bend.

Recent Appointments.—W. S. Durand, of Everett, has been appointed member of the State Board of Health, in place of J. S. McIlhenny, of the same city.

Dr. Hoye, of Auburn, has been appointed Health Officer of King county, in place of J. C. Moore, of Seattle.

WANTED.

Inquiries have been made for the following back numbers of NORTH-

WEST MEDICINE, to complete files: January, March, April, September, 1903. If any of our readers have copies for these months which they do not care to preserve, they will confer a favor by sending them to the managing editor or by writing him that they have them for disposal.

TO OUR READERS AND CONTRIBUTORS.

All material for publication must be received by the twentieth of the month preceding publication. Articles will be illustrated by half-tones or etchings when accompanied by photographs or drawings for the same. Reprints of contributed articles can be obtained at the cost of publication, from the Metropolitan Press, publishers of the journal. A limited number of additional copies of the journal will be supplied to contributors, if a request is made for them.

OBITUARY.

FRANK ARTHUR THORN, M. D.

Dr. Thorn was born July 30, 1860, at Brattleboro, Vt., where all of his boyhood and early manhood were spent and his early education was acquired. He spent several years as a druggist in the store of his father, a wholesale and retail druggist, and later was engaged in another drug store of his native city. In 1886 he passed an examination in pharmacy, in Boston, and for two years held a position in a large drug house of that city. In April, 1888, he went to Chicago where he had charge of a large drug house for some months, till his entrance into the College of Physicians and Surgeons. He graduated in 1891, with honors, being one of seven of whom special mention was made for their high averages. After a post-graduate course, he began the practice of medicine in Chicago. In 1894 he was called home on account of the death of his father. He took this occasion to go abroad for special study. In 1897 he concluded to locate on the Pacific coast and, in October of that year, began practice in Los Angeles. Not being wholly satisfied with this section of the country, he soon turned to Seattle where he settled and continued in practice till the time of his death.

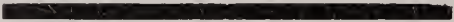
In October, 1901, he married Miss Elinor H. Ingersoll, of Martinsburg, W. Va., who, with his aged mother, survives him. He was of a quiet and unassuming manner, devoting himself closely to the practice of medicine. He was a constant student and an indefatigable reader in all branches of science, especially of chemistry, biology and psychology. He was a man of upright character and kindly disposition, thus endearing himself to all who knew him well.

His death occurred very suddenly, November 26. His remains were interred at his former home, Brattleboro, December 6.

DR. P. B. M. MILLER

Dr. Miller died December 3, from carcinoma of the submaxillary and lymphatic glands of the neck. He was born in Scotland, January 1, 1835. While a young man he went to India and subsequently lived in Australia and New Zealand, where he practised medicine for a period of ten years. He located in California in 1872 and practised in Oroville. In 1882 he moved to Seattle, where he practised medicine till within a few weeks of his death. Thus, with one or two exceptions, he had practised longer in Seattle than any of the existing practitioners. He served on the State Medical Examining Board, under Governor Rogers, and for four years was on the United States Board of Pension Examiners. He was a man of striking individuality and, especially of late, possessed of remarkable vigor and vitality for one of his years. By inheritance and nature he was of a combative temperament and was accustomed to maintain his views with vigor and decision. At the same time he was a clear thinker and possessed valuable powers of discrimination in medical subjects.

He is survived by his wife, two daughters and four sons, the youngest of whom is a senior student in the Medical Department of the University of Pennsylvania.



REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, E. E. HEG; Secretary, CARL HOFFMAN.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of December 5, President Heg being in the chair. Forty-three members and visitors were present.

The following names were proposed for membership and duly referred to the proper committee: S. F. Wiltsie, J. T. Ghent, H. T. Turner and S. J. Bridenstine.

A resolution was passed recommending to Governor-elect Mead the appointment of Dr. A. H. McLeish as Superintendent of the Western Washington Hospital for the Insane, at Steilacoom.

The following resolutions were adopted concerning the death of Dr. F. A. Thorn:

Resolved, That the King County Medical Society deeply regrets the loss of one of its members by the sudden death of Dr. F. A. Thorn and that an expression of sympathy be extended to his family.

Resolved. That this resolution be spread upon the minutes of this society and that a copy be sent to his family.

W. A. SHANNON,
J. B. EAGLESON,
Committee.

A motion was passed that an appropriate floral offering be sent to the funeral services of Dr. P. B. M. Miller.

An amendment to the By-Laws was introduced by Dr. Smith, to the effect that commissioned officers of the medical departments of the United States Army, Navy and Marine Hospital Service be eligible to membership in this Society on application, without waiting the customary year's residence.

The President appointed the following committee to arrange for the annual banquet of the Society, to occur in January: G. S. Peterkin, J. E. Harris and C. H. Thomson.

CLINICAL CASE.

An Unusual Case of Typhoid.—C. A. Smith reported an interesting case of typhoid in a young lady who had an intestinal hemorrhage on the seventh day, became unconscious on the ninth and died on the tenth.

PAPERS.

The Principles of Surgical Cleanliness and their Practical Application in Gonorrhea.—G. S. Peterkin read this paper, reciting the general principles of asepsis and at length applied them to the treatment of gonorrhea. He exhibited and described a package, devised by himself, for use by patients, including an alcohol lamp, test tubes, glass syringe and medicines. A special appliance fits over the lamp by which the tube, containing syringe and fluid, can be sterilized. He claimed that, by its use, the disease can be treated more scientifically, cleanly and satisfactorily.

The paper was discussed by Drs. Read, Hoffman, Ross and Johnson, all of whom commended the work by the essayist in this line. The question was raised whether one could induce the ordinary patient to purchase and use a special apparatus such as described.

A Case of Neurasthenia following Appendectomy.—A. O. Loe read a description of the case. (See page 23.)

C. A. Smith related a parallel case in his experience where a second opening of the abdomen effected a cure but soon the typical symptoms were again assumed. The patient was clearly a malingerer.

J. E. Harris described a case in his experience that exhibited neurasthenic symptoms after a similar operation.

H. M. Read and W. McDowell discussed the aspects of neurasthenia in general and its special application in this relation.

J. P. Sweeney advanced the theory that the neurasthenia following this and other abdominal operations was due to the cutting of certain fibers of the sympathetic nerves.

Hamilton Stillson spoke of neurasthenia as indicated by certain ocular symptoms and the possibility of differentiating it from milinger-ing by this means.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of Dec. 19, President Heg being in the chair. Forty-eight members and visitors were present.

PATHOLOGIC SPECIMEN.

Ulcerative Endocarditis.—C. W. Sharples presented a heart displaying the features of this condition, with large vegetations on the valves. The patient was a Japanese, of 30 years, who gave only a slight history. He had suffered from gonorrhea for about six weeks, which was supposed to be the cause of this heart condition. No bacteriologic examination was made of the heart contents.

PRESIDENT'S ANNUAL ADDRESS.

Medical Laws and Needed Legislation.—President Heg gave a history of the medical legislation enacted in the state of Washington, beginning with the passing of the first Medical Practice Act, in 1890. He mentioned the alterations which have subsequently been made in this and commented on some of its failures. He dwelt especially on the defective statutes relative to health and sanitation, and the absurdly inadequate laws now existing, as to the collection of vital statistics. He offered various recommendations and suggestions to improve these deficiencies.

Dr. J. B. Eagleson read a letter received from Senator Wilson, of Pullman, stating that the osteopaths proposed to attempt the passage of a bill by the Legislature, granting them an examining board which would license them to practice. He recommended an effort to bring them under the jurisdiction of the present Examining Board.

C. W. Sharples presented a resolution of a similar purport, giving the Board the right to examine osteopaths in certain branches which they claim to have studied, and the right to license them for a certain kind of practice. He also offered a resolution concerning changes in

the Medical Act, by which certain superfluous branches for examination shall be eliminated. He also recommended that the provision for reciprocity with other states be stricken out and that enactment be made for temporary licenses till the time of the next examination, for those who hold licenses from other Boards.

After a brief discussion it was voted to refer all these matters to the Committee on Public Health and Legislation, to report to the society at the next meeting, when they shall be generally discussed.

The following applications were received for membership and referred to the proper committee: F. L. Raberge, Kenneth Turner. The following were elected to membership: C. F. Engels, J. S. Bridenstine, W. K. Turner, S. F. Wiltsie, U. C. Bates.

The amendment proposed at the previous meeting, admitting to membership surgeons of the U. S. Army, Navy and Marine Hospital, was unanimously adopted.

At the suggestion of the committee on the annual banquet, it was voted to postpone the banquet to the second Monday of January and to hold the regular meeting of the society on the first Monday, when the election of officers will occur, and opportunity will be had for thorough discussion of the recommendations of the President's address as well as the resolutions offered by Dr. Sharples.

The Annual Report of the Secretary was presented as follows:
To the Officers and Members of the King County Medical Society.

I respectfully submit the following report of my office for the year just closed, including statistics of interest, which would not come strictly under the head of business.

The number of meetings held during the year was 21; the number of clinical cases 5; the number of pathologic specimens exhibited 14; the number of addresses delivered 5; the number of papers read before the society 27; while the number of discussions brought forth by the above reached a total of 152.

Our ranks were depleted by the death of one honorary, and three active members, A. R. Becker being the honorary and A. B. Kibbe, F. H. Coe, and F. A. Thorn the active members who have passed from our midst. We also lost 3 members through non-payment of dues. Our gain in new members amounts to 11 for the year, giving us a net gain in membership of 5 for 1904. Our membership now totals 117 active and 2 honorary members.

During the year I have collected in dues, membership fees and profits from the Laboratory, \$562.50, which, added to the balance left in my hands from last year of, \$160.55, makes a total of \$723.05. I have paid into the hands of the Treasurer, F. M. Carroll, \$723.05. during 1904. The expenses of maintaining the office of Secretary, aside from the yearly salary of the office, has been \$20.00.

In passing from the office with which you have seen fit to honor me for two successive years, I wish to thank you all for the forbearance you have shown with my short-comings, the encouragement you have given me in my undertakings and the aid you have invariably shown at every opportunity.

Respectfully Submitted,
CARL HOFFMAN.

The report of the Treasurer was deferred till the next meeting.

Nominations were made for the offices of President, Vice-President, Secretary and Treasurer for the ensuing year. They were laid over till the next meeting for election.

PIERCE COUNTY MEDICAL SOCIETY.

President, C. QUEVLI, M. D.; Secretary, A. D. T. GREEN, M. D.

The Pierce County Medical Society met on Dec. 6, in the parlors of the Tacoma Hotel, the meeting being called to order by Dr. Quevli. The application of Irwin A. Weichbrod was read and referred to the Board of Censors. The committee to look after the employment of a Bacteriologist and Pathologist was not prepared to make the final report, but promised to do so at the next meeting.

PROGRAM.

Pure Food for Infants.—Dr. Grant Hicks read a very able paper on this subject. Dr. Love, the City Health Commissioner, spoke on the bad condition of the dairies as found by him on a recent tour of inspection. Dr. Yocom describes the methods followed in some other cities to obtain a supply of good milk. He especially recommended the issuing of certificates to diarmen, who brought their milk up to proper standard.

Dr. E. M. Brown motioned the chair to appoint a committee to form resolutions towards getting a better milk supply for the city. Those appointed on that committee were: Drs. E. M. Brown, Love, Hicks and Yocom.

WHATCOM COUNTY MEDICAL SOCIETY.

President, D. E. BIGGS, M. D.; Secretary, W. N. HUNT, M. D.

The regular monthly meeting was held Dec. 12, in Odd Fellow's building, Bellingham, with Dr. Van Kirk, Vice-President, in the chair.

Dr. W. R. Gray, being recommended by the committee on ethics was duly elected to membership.

After considerable discussion the society voted to urge the passage, by the next Legislature, of a law regulating the practice of midwifery and one providing that the office of coroner shall be held only by a physician.

PAPERS.

Ocular Therapeutics.—Dr. F. J. Van Kirk read a paper under the above title, referring especially to the sub-conjunctival method of applying remedies to the eye. Among the later therapeutic agents dionin was mentioned as a most useful remedy in certain cases.

Dietetics of Infancy.—The above was the title of a paper read by Dr. S. H. Johnson. Modified fresh cow's milk was recommended as the best substitute for mother's milk under most circumstances but occasions might arise when other foods would be found to agree better. A warning was given against sterilizing milk by boiling, as by so doing the antiscorbutic element was destroyed and children would not thrive on it.

Both papers were discussed by nearly all present. Adjourned to meet Jan. 9, 1905.

BOOK REVIEWS.

Edited by
Kenelm Winslow, M. D.

Theory and Practice of Infant Feeding With Notes on Development.
By Henry Dwight Chapin, A. M., M. D. Second Edition, Revised, 6 in. by 9¼ in. 342 pp. Illustrated. Cloth. Wm. Wood & Co., New York, 1904.

This is an exceedingly interesting book and treats the subject in a way which is frequently novel and refreshing. Chapin, it will be remembered, was the father of the clean milk reform in New York, in instituting a committee—of which he was chairman—of the New York County Medical Society resulting in the present Milk Commission which has revolutionized the milk supply of New York and indirectly of the country.

The theme that the ideal of an artificial infant milk-food is not the exact chemical counterpart of human milk is elaborated in the opening chapters and based on a comparative study of the chemical and physiologic digestive processes of man and other animals. Thus it is shown that in the young ruminant a hard-curding milk is needed which will remain in the quadruple stomach for a long time because here digestion is chiefly done.

In the young of the monogastrics, on the contrary, a soft-curding milk which will quickly pass into the intestinal tract, where digestion is chiefly conducted, is the desideratum. It is also demonstrated that refined chemical niceties, in the attempt to make an exact chemical likeness of human milk out of cows, are not essential and that the two are more alike from a chemical standpoint, than was formerly thought. That, for instance, one of the reasons why the modified milks are more successful than the older mixture of cow's milk and water, is because so much more pains is taken to get pure milk. In this connection it is proved that clean fresh cow's milk is not acid and thus one of the most distinctive differences thought to separate human and cow's milk is wiped out. One of the salient features of the book is the attention given to cow's milk—its physical and chemical properties; its bacteriology; but especially how to raise it, with all the particulars, so that a medical man can himself bring about the necessary improvement of the milk-supply by education of the farmer and dairyman.

The author advises a cereal gruel as the best diluent and favors dextrinization. He remarks that the objection which has been made that nature was not being followed, as no human breast ever secreted cereals, is met by the reply that no human breast was ever known to give forth cow's milk. He trenchantly remarks in another place that the great difference between the food of animals lies in the fact that the food of herbivora is wrapped in paper (cellulose) while that of carnivora and human beings is not.

The whole treatment of the subject is bright, clear and original and withal practical. The paper, type and general appearance of the book are excellent and it will have wide appreciation.

WINSLOW.

Lectures to General Practitioners on the Diseases of the Stomach and Intestines—By Boardman Reed, M. D., Professor of Diseases of the Gastro-Intestinal Tract, Hygiene and Climatology in the Department of Medicine of Temple College, Philadelphia; Attending Physician to the Samaritan Hospital, etc., etc. Octavo Vol. 1124 pages. Price, \$5, in Cloth. E. B. Treat & Co., Publishers, New York.

During the past few years activity has been shown in the direction of a more exact and scientific knowledge of the diseases of the stomach and intestinal tract, and the recorded advances in this respect have rendered almost useless, text books of a not very remote period. These studies and researches have been taken up from time to time and further advanced, we are proud to say, by such men as Hemmeter, Einhorn (and other specialists) and now by Reed who, from an extensive experience in this special field, together with the accumulated knowledge of a long career in general medicine, an extensive clinical experience, and the aid which teaching this special subject concedes, has succeeded in giving to the general practitioner (as also specialists) a systematic work of great value.

Dr. Reed evidences has true conception of the paramount importance of this part of his work, in giving, in a clear, concise, intelligible manner, the latest guides to a scientific conclusion of the diseases of stomach and intestines. His methods of examination, viz, outlining of the stomach, chemistry and microscopy of stomach contents as recited, are good. Still another and more valuable feature of his work, is the personal hygienic and food requirements, which are of practical value and thoroughly presented.

Under treatment, the indications for the various forms of electricity, X-rays, massage, vibratory stimulation, hydro-therapy, gymnastics, liquid medication, medical and surgical treatment are fully and separately considered, up to date, and praiseworthy. However much we may differ with him in his treatment of tuberculosis and selection of certain drugs, (somewhat antiquated) in other diseases, the fact still remains that the author has met all requirements in this part of his work. The more successful therapy by diet, mechanical means of treatment, and surgical procedures, find their full exposition, and the proper value of each is assigned. The work is fully and creditably illustrated. The appendix is a full summary of the vast work done in stomach and intestinal diseases during the past decade. It may be said of Dr. Reed's work, that for system, clearness, definiteness and completeness, nothing is wanting and the author has placed himself in the foreground of American writers of text books on gastro-intestinal diseases.

HOLMES.

New Methods of Treatment.—By Dr. Laumonier. Translated and edited from the second revised and enlarged edition by H. W. Syers M. A., M. D., 5x7½ in. pp. 321. W. T. Keener & Co., Chicago.

We must always look to France for the new, be it a new bonnet or a new drug, and while it may seem to the steady-going Englishman or American that their methods are sometimes a little "high-falufing", it is not inappropriate that a work on the new remedies should emanate from such a source.

In the present volume will be found both a critical review of the

value of the measures and an account of the pathologic physiology and pathogeny bearing on the subjects which are treated in each chapter.

The following presents a brief summary of its contents: Soluble albumins, peptones and albumoses; lecithins, nucleins and glycerophosphates. Phosphoric acid, cacodylates; orexine and the yeasts. Hematotherapy, hematoenteroclysis, employment of blood derivatives and substitutes for iron. Mineralizing agents and artificial serums. Under Respiratory Alterants, vegetable essences, creosote and its derivatives, and intrapulmonary injections. Under Renal Alteratives; spermine, piperazine, sidonal, theobromine, quinoformine and salts of strontium. Under Hypertension; erythrol tetranitrate. Under Organotherapy; all the glandular products and zomotherapy. Under Serotherapy; all the serums and antirabic vaccination. Under Nerve Alterants; dionin, heroin, the eucaines, nirvanin, orthoform, salicylate of methyl and ulmarene. Under Antipyretics; euquinine, pyramindon, acteopyrin and citrophen. Under the Antiseptics; all the modern derivatives of silver, mercury and iodine, formol and iodoformine. While the list of new therapeutic remedies is formidable, many of which the reviewer confesses he is as ignorant of as a hairy ainu, and while it is always impossible to forecast which will prove of permanent value, yet it is our opinion that the present volume is written with a true scientific spirit and serves its purpose admirably.

WINSLOW.

Diseases of the Nose, Throat, and Ear, and their Accessory Cavities. By Seth Scott Bishop, M. D., D. C. L., LL. D., Author of "The Ear and its Diseases;" Honorary President of the Faculty and Professor of Diseases of the Nose, Throat, and Ear in the Illinois Medical College; Professor in the Chicago Post-graduate Medical School and Hospital; Surgeon to the Post-graduate Hospital and to the Illinois Hospital; Consulting Surgeon to the Mary Thompson Hospital, to the Illinois Masonic Orphans' Home, and to the Silver Cross Hospital of Joliet, etc. Third Edition. Thoroughly Revised, Rearranged, and Enlarged. Illustrated with 94 Colored Lithographs and 230 Additional Illustrations. 564 Pages, Royal Octavo. Price, Extra Cloth, \$4.00, net; Sheep or Half-russia, \$5.00, net. F. A. Davis Company, Publishers, 1914-16 Cherry St., Philadelphia.

The rapidity with which this book has passed to its third edition is convincing proof of its deserving popularity. It carries with it a precise description of individual technic that cannot fail to be refreshing to all readers, and a contrast to that form of mechanical literature which is at times so uninteresting.

The ear is not treated fully, as it might conflict with the author's larger work on that subject. It gives some interesting chapters on methods, instruments and inhalers. The subject of hay fever is fully discussed in an original manner and the author believes, with Haig, that uric acid is a causative feature. The chapters on "The related diseases of the eye and nose," and "Life insurance, affected by diseases of the ear, nose and throat," are notable departures.

Although the frequent mention of campho-menthol might be with profit omitted, yet, as a whole, the book leaves little to criticize and much to commend.

PERRY.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON BOARD OF HEALTH FOR NOVEMBER, 1904.

<i>Counties.</i>	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	<i>Cases</i>	<i>Deaths</i>	<i>Cases</i>	<i>Deaths</i>	<i>Cases</i>	<i>Deaths</i>	<i>Cases</i>	<i>Deaths</i>
Adams	0	0	1	0	1	1	1	2
Chehalis	0	0	1	0	1	0	2	0
Chelan	0	0	0	0	1	0	2	0
Columbia	0	0	0	0	0	0	2	1
Cowlitz	0	0	0	0	4	0	2	0
Douglas	0	0	3	0	9	0	0	0
Garfield	0	0	0	0	0	0	6	0
King	0	0	2	0	9	2	3	0
Kitsap	0	0	0	0	5	1	0	1
Kittitas	0	0	3	0	4	0	0	0
Klickitat	0	0	0	0	3	0	4	0
Lewis	0	0	0	0	0	0	6	0
Lincoln	0	0	0	0	0	0	45	7
Pacific	0	0	0	0	0	0	1	1
Pierce	1	0	0	0	2	0	4	2
Spokane	0	0	13	0	19	0	0	0
Walla Walla	5	0	0	0	2	0	5	4
Whitman	0	0	1	0	0	0	12	4
Yakima	0	0	1	0	9	1	36	0
Bellingham (city)	0	0	0	0	1	0	3	2
Seattle (city)	1	0	16	0	29	3	0	2
Spokane (city)	0	0	12	0	99	5	11	3
Tacoma (city)	1	0	3	0	7	0	15	2
Total	8	0	56	0	206	13	163	29
Total, Nov., 1903.....	28	1	109	3	40	4	154	15
Total, 1904	290	9	976	43	1175	147	1158	149
Total same period 1903, 590	13	743	23	236	40	601	70	

ELMER E. HEG, Secretary.

NORTHWEST MEDICINE

February, 1905.

ORIGINAL CONTRIBUTIONS.

AMERICAN CONTRIBUTIONS TO TROPICAL MEDICINE.*

By J. W. AMESSE, M. D.

Assistant Surgeon, U. S. Marine Hospital Service, Seattle, Wash.
SEATTLE, WASH.

Lest we forget that the sudden expansion of this country in '98 involved obligations, not only on the Government, but on us as individuals and particularly on the profession in whose interest we are today assembled, I beg to call your attention for a few moments to this field of our latest endeavor.

It is only within the last decade that more than a superficial knowledge of essentially tropical diseases was considered necessary. As our political interests were centered entirely in this country, so was the sphere of American medicine restricted to its boundaries. We complaisantly allowed our English confreres to gain one brilliant victory after another, in foreign fields, and we calmly watched the scientists of Germany and France and Italy win added laurels in the conquest of the Oriental plagues.

In short, we were satisfied to have others blaze the pathway of medical progress in every clime but our own. Promptly, however, with the spread of American sovereignty to the distant Philippines and over the islands of Cuba, Hawaii and Porto Rico, our ranks were pervaded by an imperialistic spirit which gladly accepted the responsibilities the fortunes of war had so unexpectedly thrust upon us. And it is to the pioneers in this movement; to that earnest, self-sacrificing body of men, both in the Federal Service and private life, who have done so much toward the subjugation of the endemic diseases afflicting our new possessions, that I wish to pay tribute, on this occasion.

Time will scarcely permit more than a brief summary of the work accomplished in a sphere that, only six years ago, was wholly unfamiliar to the American, but it will suffice, I believe, to impress strongly upon you the value of these achievements.

* Read before the Washington State Medical Association, Seattle, Wash., July 12-14, 1904.

First among all medical conquests of recent years stands the solution of the yellow fever problem, following the work of the Reed Commission, in Havana, in 1901. From the day when this and every other plague was attributed to Divine punishment, or, as Sydenham says, to "a malignant constitution of the atmosphere," the views of authorities have, until recently, suffered constant change, and have been the subject of most aerimomious discussion. Even such men as Rush, who preached in season and out the miasmatic origin of yellow fever, were often presented with indubitable proofs of its epidemic spread, on introduction into the most salubrious sections, and its rapid dissemination aboard an infected vessel was pointed out as conclusive evidence of its contagiousness.

On one point, however, all agreed—that mosquitoes abounded during an epidemic. This observation was published by Rush as early as 1804, and, later, by a score of writers on the subject, but it was not until 1881 that Carlos Finley, of Havana, advanced the theory that the mosquito was an intermediate host and the chief factor in the transmission of the disease.

And while Finley accomplished practically nothing in the substantiation of his claim, we owe much to him for its conception, supplying, as it did, the Reed Commission with a working hypothesis that led to such brilliant results.

Recognizing the strong analogy between the progress of yellow fever and the spread of malaria, this board, convened at Havana, began their work by an investigation of the mosquito theory. An exhaustive series of experiments resulted. Several members of the Commission submitted themselves to the bites of infected mosquitoes, with fatal results in the case of Lazear. From the first, ample justification of Finley's contention was shown, and, in a very few months, its truth was confirmed.

The species of mosquito known as the *stegomyia fasciata* was proved to be the carrying agent of yellow fever and the application of this knowledge promptly cleared Havana of her great endemic pest. Since the crusade against the *stegomyia* in 1901, no case of yellow fever has originated in this hitherto widely infected city. The institution of similar methods confined it, in 1903, to a very limited territory in Southern Texas, infected from a neighboring district of Mexico, while the same plan of campaign bids fair, this season, to restrict materially its spread, across the border.

Yellow fever must now be considered, as Finley expresses it, "as a disease produced in individuals belonging to certain races by a

two-host, microscopic, perhaps ultra-microscopic germ, endo-parasite of the female of a particular species of mosquito—the *stegomyia fasciata*.” The work of the Reed Commission, and the subsequent development by Carter, Gorgas and others, of practical measures for the extermination of the mosquito, placed yellow fever in the class of preventable diseases alongside of smallpox and typhoid.

The importance of this discovery from an economic, as well as a sociologic and a professional standpoint can scarcely be overestimated, nor can the possibilities for advancement following the regeneration of such cities as Very Cruz and Rio de Janeiro be overdrawn.

The influence of a scientific achievement of this nature is of such direct and far-reaching import to so many millions of people that it is not surprising the profession at large have contributed so bountifully to the perpetuation of the memory of Walter Reed, in bronze and marble. From Welch's eloquent tribute to his work, expressed at the last meeting of the American Medical Association, I quote these lines: “The discovery which he made is peculiarly American; his service to mankind has been paralleled only in two or three instances; it was an admirable, a classic piece of scientific investigation second only to the discovery of the control of smallpox by vaccination.”

Next, probably, in importance to the demonstration of the mode of transmission of yellow fever, was the recognition of the so-called hookworm disease in our Southern States, by Stiles, in 1902.

Though this disease was known to the Egyptians fully 3500 years ago, and is still spoken of in some countries as Egyptian chlorosis, its connection with the parasite, *anchylostoma duodenale*, was not shown until late in the last century. From that time, up to 1902, this was supposed to be the only hookworm inhabiting the intestine of man, but, in May of that year, Stiles demonstrated a distinct species to which he gave the name *Uncinaria Americana*.

Believing the disease was more widespread in the South than the literature seemed to indicate, Stiles requested, and secured, permission from the Surgeon General of the Public Health & Marine Hospital Service to begin an exhaustive field investigation. After a most painstaking study extending over several months he proved beyond question that *uncinariasis* has been epidemic in the South, particularly in the rural sand districts of Georgia and Florida, for almost a century; that in its varied manifestations it has been mistaken for malaria, pernicious and simple anemia and for the

systemic disturbance following the filthy habits of dirt eating and resin chewing so common among certain classes.

Warfield, of Savannah, in confirming Stiles' work, has recently pointed out a new agency, the affection known as ground itch, that must be held in part responsible for the almost universal prevalence of the disease among children in certain districts. He argues that the constant scratching of the inflamed surfaces—usually the feet—transfers the embryos to the fingers, and later, in children, to the mouth.

Of the economic importance of this discovery I quote the following from Stiles' monograph on the subject: "Malaria is admittedly one of the most important diseases from an economic standpoint. In general uncinariasis is, in the South, fully as important as malaria, and, in some respects, even more so.

It is reducing the labor capacity, hence the productiveness of the family, to as low as 30 to 40 per cent. Nor are the losses in wages and in the laboring capacity, and the decrease of productiveness, of the family, hence of the farm, and finally of the country and state, the only economic considerations involved. Cases are not unknown where families have sold, moved or destroyed their homes because of the existence of this disease and because of the belief that it might be due to the locality in which they lived.

Taking what I believe to be a conservative view of the subject I find it exceedingly difficult to escape the conclusion that in uncinariasis we have a pathologic basis as one of the most important factors in the inferior mental, physical and financial condition of the poorer classes of the white population of the rural sand and piney wood districts in our Southern States."

Stiles' conclusions on the effect of the ravages of hookworm diseases on the social and industrial condition in the stricken districts are followed by a discussion of the prophylaxis and treatment, which offers the greatest hope that this truly preventable disease will soon be restricted and finally eradicated.

What Stiles has done for the South, Ashford and King have accomplished for Porto Rico. With probably as fine a climate as is enjoyed anywhere in the world the inhabitants of this island exhibit a degree of disability entirely out of proportion to the privations they have undergone. Out of 600 plantation laborers imported from Porto Rico by a Honolulu corporation in the fall of 1900, fully 70 per cent. suffered such extreme anemia that field labor was impossible and the experiment was abandoned.

Various causes have been assigned for this widespread anemia

and, as in the United States, it has been attributed to paludism, to improper and insufficient food and to the unsanitary surroundings tolerated by the entire population. Ashford and King have so clearly demonstrated, however, the role of the hookworm in its origin, that the legislature has recently provided a fund of \$5,000 to begin a campaign looking toward its extermination. It will take years, perhaps, to instill into the minds of these primitive people a comprehensive knowledge of the prophylaxis of uncinariasis; to uproot the filthy habits which have been responsible for its perpetuation among them, but the end is nevertheless in sight, with all the economic gain that it implies for Porto Rico.

The impetus given to the study of the parasitology of the tropics since the war with Spain has also resulted in substantial gain to our knowledge of trypanosomiasis, a disease long known to affect certain animals, but only recently shown to be the cause of the sleeping sickness of South Africa. The earliest American work on this subject was done in Manila, where Kinyoun identified the parasite of surra, in a severe epidemic among the animals of the Quartermaster's Department. Since that time the most exhaustive study of surra has been made in our insular laboratories by Freer, Musgrave, Jobling and others, and in this country various important contributions have been published.

To Novy and McNiel, however, of the University of Michigan, must credit be given for the painstaking investigation that led up to the welcome announcement, in May last, of the successful cultivation of the parasite in artificial media. Blood agar tubes, inoculated with infected blood, were forwarded from Manila to Ann Arbor, some of them on arrival, in spite of the forty day journey, showing the trypanosomes, still actively motile.

From these colonies were grown and, for the first time in the history of medicine, pathogenic protozoa were isolated in pure culture. Subsequent observations showed that the trypanosome of surra differs materially from the organism described by Lewis and by Bruce, proving that surra and nagana or the tsetse fly disease are distinct affections.

This important discovery, simplifying as it will the study of analogous diseases, has done more to establish our position in the front rank of tropical medicine than any work since the yellow fever investigation in 1901. Collaborers in the Pasteur institute recognize this, and only a few days ago Dr. Mayajima, Assistant Director of the serum institute of Tokio, assured me that Japanese

scientists consider it one of the greatest of all medical achievements.

Along other lines than these, American bacteriologists have been active, and have accomplished much. In the study of amebic dysentery Craig has recently succeeded in tracing, by means of a modification of Wright's stain, the life cycle of the ameba and in proving the method of its production to be by sporulation. Flexner, Dock, Councilman and Strong have also published monographs that have been added to the permanent literature and Hoover and Howard, of Cleveland, in their recent work on amebic abscess, have practically exhausted this subject.

In the study and control of bubonic plague, Kinyoun's achievement in San Francisco is known to you all and is a source of pride to the entire profession, while the work of Calvert and Munson, in Manila, has practically exterminated the disease in that city.

The urgent need of a school of tropical medicine in this country or, rather, in some one of our island dependencies is admitted by all and I am glad to advise you that the nucleus for such an institution actually exists, at Manila, where a number of skilled bacteriologists are laboring with the health problems presenting in our Oriental colony. Examinations are held each year in various portions of this country, for appointments to these positions, the work being carried out under the direction of Dr. Strong, who has accomplished so much in clearing the etiology of the bacillary forms of dysentery. A laboratory, second to none in the East, is building and the heartiest encouragement is offered by the Insular Government to those desiring to prosecute research work.

The question now naturally arises: "How can the practitioner in Washington aid in the promotion of these investigations, and advance the study of tropical medicine? He can do it by influencing legislation for the permanent endowment of insular schools and laboratories; he can contribute substantial support by encouraging the institution of courses in tropical medicine in his alma mater, and the addition of special lectures by men skilled in this branch of study.

He may encourage, too, individual effort, not forgetting that these pioneers are carrying the standard of American medicine into fields hitherto unexplored. They belong to us; their victory is our victory. We share the reward of their brilliant achievements and should feel, in corresponding measure, the pride that follows the consciousness of duty ably performed.

ATYPICAL AND MODIFIED FORMS OF TYPHOID FEVER.*

By C. J. LYNCH, M. D.

NORTH YAKIMA, WASH.

The average graduate of medicine begins practice with a more or less definite picture of typhoid fever. This is usually described in this manner: Typhoid fever is an acute infectious disease, characterized by step-like ascent of evening temperature, with morning remissions, rose colored rash, enlarged spleen, abdominal tenderness, nose-bleed, furred tongue, diarrhea, and so on. This is about the usual attitude towards the disease. This limited and dangerous conception of the manifestations and pathology of the malady is due, principally, as a recent writer points out, to the pernicious influence of authority. Our modern text books and lectures impress an image of the disease upon the student, that requires years of experience to eradicate and, in many instances it outlives his span of usefulness. There should be no fixed conception of typhoid.

Considering that of all diseases typhoid has the most varied array of symptoms, and its pathologic influence equally varied and extensive, one readily appreciates how misleading one's early impressions may become. The typical cases, or those representing the full virulence of the disease, should not be the standard of measurement for less pronounced cases. The class of cases to be referred to in this paper include only those which begin as atypical and remain so throughout the illness, or until a relapse occurs. It is not meant to include those that begin as atypical but develop into typical, during the regular course of the disease.

The seasonal influence upon typhoid manifestation is very great. The mild, unsuspected case of December may as rightly be called typical for that month, as the most pronounced case may be called typical for August. So also the unrecognized case occurring in midwinter is the type for that season. Thus it is that one must have a very flexible conception of this disease to meet the demands of proper recognition. More baneful is the mild, unrecognized case of midwinter, for obvious reasons, than the virulent one of the summer months. Then, starting out with a broad conception of typhoid, we become more discriminating in recognizing cases, and our field of usefulness is greatly increased.

In every season we meet both typical and atypical cases. In summer the majority are typical; the reverse is true during the

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colder months. There is no season when all cases are typical; neither do we find a season when all are atypical. By far more important is the study and early recognition of the atypical cases. These are the cases that cause much dispute among ourselves; they are the most difficult to control during observation and treatment; with them there is much opposition to authority, and often it is hard to reconcile the relatives to the belief that our diagnosis is correct. Disinfection is usually imperfect for the reason that many go untreated; others are regarded as suffering from other maladies, and even when one succeeds in controlling the patient for a while, there comes a time when he demands his release, and he becomes a dangerous source of contamination. To come more specifically to my subject, I will cite a few cases as examples, which occurred in my practice during the past two years.

Case I.—Mr. G. F., age 31. I was called December 2, 1902. Patient had not felt well for several days; he had a fainting spell and complained of his heart. Found his pulse 60; temperature 97 deg., weak but regular; had had frontal headache for several days; a slight cough; was constipated, an unusual condition for him; narrow tongue with gray coating, red border; nose dry with bloody scales; slight tenderness over liver and spleen, no apparent enlargement; complained of slight aching in bowels and back of neck; complained of loss of appetite and being restless at night; arm re-action present. I requested him to stay in bed as I suspected typhoid fever. This amazed him, as is usually the case, but he remained quiet for one week. During this time his temperature rose occasionally to 100 deg., irrespective of the time of day; he complained only occasionally of tenderness over abdomen; appetite returned gradually; bowels moved only when oil was given or with enema. At the end of ten days I decided to get a blood sample for examination, but when I called I found he had gone down town to work. The next evening I was called and found him with temperature 102 deg., pulse 108. He developed a virulent case of typhoid, in which all the characteristic symptoms were present. He had four hemorrhages from the bowels.

Case II.—Mr. G., age 34. Called December 24, 1903. Temperature 99 deg., pulse 94; slight cough; slight aching sensation in bowels and back; constipation; frontal headache; nose dry; tongue coated; loss of appetite, and chilly feeling up and down back. These symptoms began rather suddenly the day before; liver and spleen slightly tender, but not enlarged. In four or five days all symptoms subsided, appetite returned, temperature normal; but each time solid food was given, even in small quantities, there was loss of appetite, rise of temperature, much depression and abdominal tenderness. In two weeks a pronounced typhoid odor developed and continued; the general appearance of the case showed marks of typhoid; a blood examination gave a fairly good

Widal reaction. The patient was able to be about in one month.

Case III.—Mrs. B. B., age 28. Patient and child sent to hospital October 1, 1903; both complained of diarrhea of a mild character. Mother's temperature 99 deg., pulse 80, regular but weak; frontal headache in afternoons, with temperature ranging from 96½ deg. in the morning to 99 deg. in afternoon; patient very nervous, also complained of continued effort to clear throat; general weakness and depression seemed to exceed the other symptoms. I could not say now just what it was that decided me in making a diagnosis of typhoid. I think it was the general impression that the case gave me. She was taken care of for ten days at the hospital, during which time her temperature persistently rose to 99 deg. in afternoon, and subsided to subnormal in the morning; diarrhea ceased on second day of admission. On about the tenth day of her treatment she insisted on going to see her child, who had grown steadily worse; at this time she had a fairly good appetite and felt well most of the time; she went under protest, and next day temperature reached 102 deg., pulse 120; her temperature and pulse gradually rose and assumed the typical typhoid curve, and stood at 106 deg., pulse about 140, each evening for a week, when she died of exhaustion. An autopsy was held on the case, and nine feet of gut studded with typhoid ulcerations was removed.

These three cases will serve to represent the class under discussion. You may call them mild, modified, abortive or by whatever title you wish; nevertheless they will often be overlooked unless something occurs to distinguish them. Many cases are dismissed without a positive diagnosis being made. I could cite milder cases than these just mentioned, but in them I have no positive proof that my diagnosis is correct, for the reason that no conclusive proof could be obtained. In this class of cases we are sorely in need of means for absolute diagnosis. We do not wish the patient to have a relapse to prove our contention. The Widal reaction, as applied at the present time, will reach but few of these cases. In this class the agglutinating power of the blood seems to vary a great deal, according to the severity of the case, and a definite compact clumping (according to my experience) does not occur. This means that, with the present application of the Widal reaction, these cases would be classed as negative, or at best, suspicious. It is of the utmost importance that every means of diagnosis be resorted to, for the reason that if a case is not recognized no steps will be taken to prevent the spread of the disease. It is not enough that the patient himself recover without serious illness; the health of others must be safeguarded. I can not say what percentage (if any) of these cases belong to the class that is known as paratyphoid. Certain it is that some of them do not belong to it for the reason that many of them are

followed by relapse, during which the characteristic symptoms of true typhoid are developed.

To finally sum up the subject it would seem:

First—That our conception of typhoid fever is too narrow.

Second—More attention should be given to a study of the atypical typhoid forms.

Third—The Widal reaction, as at present applied, will perhaps not reach the majority of modified cases.

Fourth—Atypical or modified cases, though mild, are capable and likely to be followed by relapse of a very serious nature, and these relapses are often hard to prevent, owing, perhaps, to the lack of reactional material (antitoxin) present to protect the patient.

CHRONIC SPLENIC ANEMIA WITH REPORT OF A CASE.*

By E. F. CONNYNGHAM, M. D.

PHILIPSBURG, MONT.

The patient presented is an example of a peculiar symptom complex, of an, at present, unknown etiology, not often seen, frequently mistaken for or confused with other anemias, and of an infective or other toxic character.

It has been described under several names: splenic lymphadenoma, splenic cachexia, chronic splenic anemia, splenic pseudo-leukemia, primitive splenomegalia and Banti's disease. Cabot, in the last edition of his valuable work on Clinical Examination of the Blood, objects to the term "splenic anemia," but himself offers nothing better than "anemia with enlarged spleen." This title I have never seen applied to the disease elsewhere, and I object to it for the following reasons:

First—Splenic enlargement is far from being uncommon, particularly in the anemias of childhood.

Second—Such a title is not sufficiently descriptive of the disease under discussion.

Third—It is altogether too unwieldy and cumbersome.

I think it is better, therefore, to accept the term, chronic splenic anemia or primitive splenomegaly, until a better is offered.

This malady was first described by Woillez, in 1856, and, in what is possibly its terminal form, by Banti, an Italian physician, in 1882. To him is due the credit of directing the attention of the medical fraternity to some of its peculiarities. Since then Bruhl, Potain and Samuel West, in Europe, and Woodworth, Cabot, Sippy and Osler, in America, have written on the subject; also there are

* Read before the Montana State Medical Association, Butte, Mont., May 17—18, 1904.

many notes and descriptions of cases, scattered through medical journals by various practitioners. It is to Osler, principally, we are indebted for analysing, separating and classifying a number of cases and placing them in a separate division, with a distinct definition.

To quote him: "It is a chronic affection, characterized by intoxication, probably an intoxication of unknown origin, characterized by a progressive enlargement of the spleen, which can not be correlated with any known cause, as malaria, leukemia, syphilis or cirrhosis of the liver; an anemia of a secondary chlorotic type, with marked tendency to hemorrhage from the stomach and, in some cases, a terminal stage, with cirrhosis of the liver, jaundice and ascites."

It appears that males are mostly affected. In fourteen cases tabulated by Osler one was a female. In the literature accessible to me, fifty-nine has been the oldest and nine years the youngest, each having had the disease two years. In my case the patient was seven years when the splenic enlargement was discovered. It is hard to arrive at a conclusion of the time when the disease first became apparent, most of the records giving the age of the patient when they observe the disease. A number have, however, stated how long the splenic enlargement had existed. The age at time of recording appears to average about thirty-two years.

The *etiology* is unknown and, from accounts given of research in this direction, it has been thorough. The resources of chemistry and bacteriology appear to have been utilized without result and, while it is not impossible for micro-organisms to produce the disease, it will probably be found that a toxin, originating between the stomach and the colon, is the cause.

Records of autopsies in which splenic anemia was the direct cause of death are few. Sippy states, "that, as a rule, the cadaver presents a high grade of emaciation; in others the fat is well retained, skin subicteric, subcutaneous connective tissue of dependent parts saturated with serum," in short, the gross pathologic appearances we would expect to find in severe cases of anemia.

Microscopically, the interlobular connective tissue of the liver is increased to a greater or less degree; if to a greater, we would have strong grounds for believing that an interstitial hepatitis existed and, on the amount of connective tissue increase, will depend the integrity of the shape of the hepatic cells.

Macroscopically, the reticular tissue of the spleen is changed

for an irregular fibrous formation, with compression atrophy of the Malphigian corpuscles.

The spleen normally measures 12x8x3 cm., and weighs about 200 gm. In Sippy's case it weighed 2,350 gm. In this malady the shape appears to be preserved and the organ is a little harder than usual.

The *symptoms* in the early stages are very indefinite; lassitude, dyspnea, palpitation, mental torpor, headache of a light character with eyes easily tired, skin anemic and of a dusky tinge with occasional mottling, possibly mild hemorrhages from the nose or occasionally large, buccal membranes palid, intestinal regularity disturbed, sometimes a sensation of weight and fulness in the abdomen, pain in some cases attributable to perisplenitis.

When the case has progressed for a long time the patient or attending physician discovers the tumor and then the cardinal points differentiating it from the other anemias are present. First, enlarged spleen; second, absence of enlarged lymphatics; third, leucopenia. The last is constant, though Banti records a case with leucocytosis which was discovered on the day pneumonia appeared. Osler records one with a count of 12,497, and Cabot one of 15,800. These exceptions, if the disease were better understood, could very likely be explained. I find the average of a large number of recorded counts, including the two high ones mentioned, to be 3,000. The red average is 3,400,000; the hemoglobin average, 37 per cent.

There are three forms of anemia with which this may be mistaken: splenic leukemia, anemia infantum splenoleukemia of von Jaesch, and the malarial cachexia. In the first a little attention to the history, course of the disease, and use of the microscope, will differentiate; in the second the cause can be traced to rickets or syphilis, and it generally improves under appropriate treatment. In a country subject to malaria ague cake plus anemia, that is to say, malarial cachexia, might render a diagnosis difficult, particularly if chills were absent. The examination of the blood and discovery of the parasite would quickly clear up the case. It might be mistaken for echinococcus of the spleen, a neoplasm or an enlarged left hepatic lobe. It has on one occasion been diagnosed as a uterine growth. In this case a portion of the spleen had descended into the pelvis and burrowed into the broad ligament. On bimanual palpation it appeared attached to the uterus. A celiotomy corrected the mistake.

Having given the best description I can of this disease, with the

present paucity of literature, I will exhibit my patient for examination. A history of the case will show it comes distinctly within Osler's definition.

B. C., age 12, born in Minnesota, of German-American parentage, height 1.41 m., weight 78½ lbs. Family history traced back for three generations was negative.

When an infant, as a bottle-fed baby, he had gastric and intestinal derangements which lasted some time. Succeeding that he had trouble with his eyes in which pus was discharged for several months and, before they were well, he had a skin eruption of a scaly or scabby nature, with pus exuding in some places. While being treated for the latter, he was given two teaspoonsful of Fowler's solution, through the mistake of a drug clerk. *When about 5 or 6 years old he had several attacks of epistaxis. When 7 years old he had severe pains in the abdomen.* Several physicians were consulted and one found the enlarged spleen. No blood examination was made.

On the 27th of last September the boy was brought to me. He had had two attacks of hematemesis and melena a short time before. His color in the face was anemic and gray; lips, palate and gums very pallid; tongue coated with a slimy, ashy-gray material; breath intensely fetid; eyes did not look well; answered questions slowly; was very deliberate or, rather, lymphatic in his movements; tendon reflexes normal; pupillary reactions slightly slow; appetite voracious; sleeps from 8 p. m. to 7 a. m., and seldom awakens during the night; tires easily and becomes breathless on exertion; bowels loose and have been so for some time. No appearance of enlarged glands in any region.

The spleen extends downward to within .06 m. of left pubic spine, and about .08 m. to right of median line; upward it has extended so far that the apex beat of the heart is beneath the fourth rib, the heart itself being almost horizontal, and its pulsations very evident in the second and third interspaces. The splenic notch is plainly made out a short distance above the umbilicus which is protuberant from internal pressure. The spleen itself is hard but not tender on pressure. There is a hemic murmur above the right clavicle, and some atelectasis at base of left lung. The pulse is small, hard and slightly irregular, 88 per minute; respiration 19; temperature 99 deg., F. It was hard to get blood from the ear. Red count, 3,648,000; whites, 3,300; hemoglobin, 40 per cent. (Talquist).

In January a right serotal hernia made its appearance which was reduced and a truss applied. The first week in March I saw the patient again and was informed, "the truss was too strong and made him sore inside and a little sick." The hernia had disappeared, due to adhesive inflammation of the neck of the sac.

On March 8, a small encysted hydrocele of the cord was present which was tapped and 15cc. of light, amber colored fluid removed. Its specific gravity was 1.014 and contained ½ of one per cent. albumin.

The last day of March I made another count, when it was more difficult than before to get blood from the ear, even with a small scalpel thrust in three-eighths inch. Reds, 2,875,000; whites, 2,800; hemoglobin, 30 per cent. His circumference at the navel was .81 m.

April 28. Pulse 77; temperature 99.6 deg.; respiration 20. Splenic notch exactly at the umbilicus; no pain but feels very weak; appetite continues good; bowels regular. White count, 2,400.

June 14. Palate, gums and lips pallid; general color improved; pulse small and no body to it; temperature 97.2 deg. The spleen shows considerable diminution; is now at about the middle line and apparently adherent to the anterior abdominal wall, the lower end being .085 m. from the pubic spine. The notch is evidently several cm. above the umbilicus. The liver can not be found below the costal border but dullness exists at the fifth rib. The heart sounds are notably accentuated; the hemic murmur has disappeared; heart movement is easily noticeable in the second and third left interspace; the apex beat can now be heard and felt in the fourth interspace; the sound is not transmitted to the axilla. There is still atelectasis at the base of the left lung, and the hydrocele has returned to a minor extent.

Occasionally an apparently deformed red blood corpuscle has been found. The leucocytes consisted chiefly of the polymorphonuclear form but the staining might have been defective.

After the patient had been examined by the members, Dr. Rudolph Horsky, of Helena, stated that the case conformed in all particulars to one he had seen when East some time ago. But this was the first he had heard of west of the Mississippi.

In closing, it may be stated that nothing has been said about treatment. The patient had formerly been treated with iron preparations which seemed to dispose toward hemorrhage, and were consequently stopped. Then he was given arsenic, under which there seemed to be a progressive loss of strength and vitality. This was changed in April and directions given to administer, three times a week, small doses of sodium phosphate and, on Saturday nights, calomel, 15 gm.; bone marrow after each meal; that he should not be exposed to the sudden changes of temperature that prevail in the little valley where he lives; that his body be protected by flannels; that all sweet foods and articles of diet subject to fermentation be withdrawn. Since then there has been a slight but gradual improvement.

DEFECTS OF EYES, EARS, NOSES AND THROATS IN SCHOOL CHILDREN.*

By A. W. HAWLEY, M. D.

SEATTLE, WASH.

The object of this paper is to awaken an interest in this important subject, and to enlist your support and co-operation in establishing, throughout this state, of some systematic plan for the detection and correction of these defects in school children. Systematic examinations of school children are now made, annually, in Connecticut under a state law, and in New York, Illinois and Texas under the directions of the State Boards of Health and the Boards of Education.

Statistics from the work of many individual investigators clearly show the necessity of such examinations. It is unnecessary to give a detailed report of these investigations. It is sufficient to say that in general from 30 to 40 per cent. of all school children have some refractive error, and that from 15 to 25 per cent. suffer from defects of the ears, nose or throat. To determine in a measure the condition of the school children, the writer examined over 400 pupils in three of the largest schools of this city. The results of this work demonstrate that the children of this city are no better off than those of other cities, and that there is need of action on the part of this Association and its individual members.

In the examination of the 400 pupils of the city schools, the vision of each was tested by the ordinary chart of Snellen's test letters placed in good light, 20 ft. (6 meters) distant. An ophthalmoscopic examination could not be made because of the lack of proper facilities as to light or room. However, this was not essential to the value of the work. The nose and the naso-pharynx were examined, whether any complaint had been made or not, which resulted in the detection of a number of cases of adenoids and hypertrophied tonsils. The hearing was tested by tuning fork and by the whispered and spoken voice whenever suspicion pointed to ear trouble.

Acknowledging that this examination was by no means complete or perfect, nor all that could be desired, yet its results are sufficiently accurate to be of value in this discussion.

At the B. F. Day School over 165 scholars were examined, with the following results:

Ninety-seven, or 58 per cent., had some refractive error, vision being reduced to 6-9 or less.

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Seventy-eight, or 47 per cent., had adenoids and hypertrophied tonsils, or both.

Twelve, or 7 per cent., had defective hearing or chronic suppurative otitis media, or both.

At the Central School over 160 scholars were examined, of whom

Seventy-eight, or 48 per cent., had some refractive error, vision being reduced to 6-9 or less.

Eighty-two, or 51 per cent., had adenoids or hypertrophied tonsils, or both.

Twelve, or 7 per cent., had defective hearing or chronic suppurative otitis media, or both.

At the Rainier School over 95 pupils were examined, of whom

Forty-one, or 43 per cent., had some refractive error, vision being reduced to 6-9 or less.

Fifty, or 52 per cent., had adenoids or hypertrophied tonsils, or both.

Six, or 6 per cent., had defective hearing or chronic suppurative otitis media, or both.

The percentages just given, of the defectives in our city schools, are considerably higher than those obtained from similar examinations in other cities. This is explained, however, by the fact that the children examined were selected by the principals because they were deficient in school work, or were supposed to be defective in some way.

In testing the vision of these children it was impossible to make a differential diagnosis between *myopia* and *hyperopia*, or astigmatism in all cases, on account of the lack of facilities for a proper examination. This would have been desirable and instructive, as the records of other investigations show that myopia is found with increasing frequency as the higher grades are reached, while, at the same time, the frequency of hyperopia decreases in almost the same proportion.

Erismann, in 1871, examined 4,368 scholars in St. Petersburg, with the following results:

Class—	1	2	3	4	5	6	7	8	9
Myopia	13.6	15.8	22.4	30.7	38.4	41.3	42.0	49.8	41.7
Hyperopia	67.8	55.6	50.5	41.3	34.7	34.5	32.4	36.2	40.0

This increasing frequency of myopia and its deleterious influence upon the development and education of the child, has lead to numerous investigations as to its causation. The conclusion is nearly unanimous that it depends much more on the

demands made upon the eyes, by modern civilization and education, than to the influence of heredity, race or cranial formation.

At birth practically all eyes are hyperopic, and with age, progress towards emmetropia or the normal eye. The influences which prevent this beneficial change taking place, or delay its progress, are not entirely determined, though probably they are the same that produce the myopic increase.

The effect of education and intellectual advancement upon the eyes is most clearly shown by a comparison of the results of investigations made among the educated and the illiterate races. In Germany, probably the home of the most intellectual people of the world, as high as 50 per cent. of the students in the more advanced seats of learning were found to be myopic, to say nothing of hyperopia or astigmatism. In our country, in a number of cities, as high as 40 to 50 per cent. of the pupils are found to have ocular defects.

In Mexico, Ramas found, upon the examination of 2,000 school children, but 88 myopes, 60 hyperopes and 10 astigmatics. These defectives were all found among the mixed types, the pure Mexican being practically free from error.

Though hyperopia and astigmatism are not found as frequently as myopia, nor fraught with as much danger to the integrity of the eye, they are the cause of much suffering and are a great hindrance to the educational advancement of the child. Many a scholar's mental activity is greatly reduced by the suffering caused by these refractive errors. It is not an uncommon occurrence to transform the indolent, stupid, irritable, fault-finding scholar (even the school "dunce") into a cheerful, industrious, bright, active pupil who readily takes his place at the head of his class, by the correction of his refractive error with properly adjusted glasses.

The deleterious influence of ocular defects upon the mental and moral developments of the scholar will be best shown by the report of a few cases taken from the examinations recently made.

Case I.—E. S., age 16. Complained of headache and pain in the eyes, especially after reading or doing any close work. She was nervous, restless, and somewhat irritable. It was found necessary to give up some of her studies, and finally all school work for two weeks at a time because of the intense headaches and distress. Vision was found to equal 6-60 in each eye. Retinoscopy proved the error to be a myopic astigmatism, refraction, 1.00-.50; ax. 180 in each eye, the correction of which by spectacles has entirely re-

lieved all discomfort, and enables the patient to pursue her school work without interruption.

Case II.—J. V., age 12. Complains of headache, nausea and dizziness, especially when at school. During vacation time she is entirely free from these symptoms. Vision equals 6-9 in each eye. Retinoscopy proved error to be a hyperopic astigmatism of comparatively small degree, the correction being $+25$ Sph. $+50$ cyl. ax. 90 for both eyes; which gives vision of 6-6. This correction worn constantly relieves all distressing symptoms, and permits her to continue school work in comfort.

Case III.—C. L. H., age 8 years. Complains of headache when at school; can not see work on blackboard; is inattentive and restless; makes little or no progress in school, and is considered very backward. Vision, R. E. 6-18; L. E. 6-12. Retinoscopy proved error to be a hyperopic astigmatism as follows: R. E. $+75$ sph. $+2.75$ cyl. ax. 105; L. E. $+75$ sph. $+2.00$ cyl. ax. 105; which gives him vision of 6-9.

A decided improvement has occurred since he has been wearing the glasses.

Case IV.—N. H., age about 10 years. General condition poor, suffering from adenoids and hypertrophied tonsils, which are responsible for a bad nasal catarrh; considerable deafness and suppurative discharge from right ear. Vision, R. E. 2-40; L. E. 2-40 (there is not much more trouble that she could reasonably be expected to possess). Teacher reported that she was doing practically nothing in school. Since having the myopia corrected and the adenoids and tonsils removed, she has become a comparatively strong child, and is succeeding in school quite well.

At the same time this child was examined, another was seen who was in practically the same conditions. Her parents will do nothing for her, probably through ignorance, though they have been urged by the principal of the school to have her treated.

These cases are a fair sample of the many found in the examination of school children. They are not extremes in either direction, and should help to prove the necessity of some systematic work in this direction.

About 50 per cent. of all those examined were found to have adenoids or hypertrophied tonsils, usually both. The detrimental effect upon the ears and the mental and physical development, particularly of adenoids, is often very pronounced. The symptoms produced by adenoids are mouth-breathing, a want of proper nasal tone to voice, catarrh and colds which are frequent and more liable to occur on slight exposure, facial expression dull and listless. The aural symptoms, while not constant, are sometimes the first to attract attention to the naso-pharynx; earache is of frequent oc-

eurrence and commonly followed by a discharge; deafness and a sense of fullness in the ears is often complained of.

The report of one or two cases will serve to show the harmful effects of these conditions.

Case I.—I. B. W., age 10. Constant sufferer from colds and catarrh; frequently confined to bed with sore throat; physical condition very poor; appetite capricious; mentally rather stupid and dull; nervous, restless, excitable and irritable; breathes through mouth, nasal respiration being practically impossible; snored so as to be heard all over the house; voice wanting in proper nasal tone. At school always behind her class and below in her averages. The removal of the adenoid vegetations and the enlarged tonsils has changed the entire picture. She is strong and healthy—a good natured child—perfectly able to keep up with her classmates, and easily obtains marks above grade in all branches.

Case II.—C. M. Suffered from deafness, both ears, though no discharge; mouth breather; could not breathe through nose day or night; general health only fair; was not progressing as well as other children. A diagnosis in this case had been made of impacted wax as cause of deafness. Removal of the adenoid vegetations and hypertrophied tonsils has wrought a complete change. The hearing is perfect and the child more active and attentive.

Deafness and aural diseases are so closely associated with adenoids, in children especially, that any involvement of the ear should at once excite suspicion as to condition of the tissues in the pharynx and naso-pharynx. The prevalent idea of the laity that an aural discharge is of little consequence and will recover if left to itself, should be corrected. Many can trace their deafness to this idea. Besides deafness the involvement of the mastoid, with its train of complications, is frequently one of the serious results of neglect to properly care for a suppurative otitis media, acute or chronic.

Good hearing is of equal importance with good vision in the acquirement of an education. The proportion of defective eyes and ears among our school children is quite large. The educational loss to these children is very great. Means, therefore, should be provided to prevent as far as possible this great loss. Action is necessary.

I wish to present for your consideration the following:

WHEREAS, The deleterious influence exerted by defects of the eyes, ears, noses and throats of school children upon the mental, moral and physical development is not fully appreciated by educators and the public at large, therefore

Be it Resolved, That it is the sense of the Washington State Medical Association that measures be taken by the State Board of Health, the State Board of Education, all school authorities

and, if possible, legislation be secured, looking to the systematic examination of the eyes, ears, noses and throats of all school children, that diseased conditions may be found and corrected.

Similar resolutions have been adopted by the American Medical Association, by the Mississippi Valley Medical Association, the Missouri Medical Association, and also by the State Medical Associations of New York, Illinois, Michigan, Colorado, Ohio, South Dakota and others.

The adoption of this resolution will be of little value unless some means be provided for carrying out its suggestions.

CLINICAL REPORT.

FRACTURE OF THE ASTRAGALUS.

By Montgomery Russell, M. D.
Seattle, Wash.

Fracture of this bone is very rare; it usually results from falls, the weight of the body striking upon one foot.

Symptoms. If there is no marked displacement of the fragments, the diagnosis is extremely difficult, the strong ligamentous attachments of the bone usually preventing much displacement. The diagnosis is made by the presence of persistent pain, inability to bear pressure on the foot, rapid swelling, and by eliciting crepitus by flexing, extending, abducting or adducting the foot. Where there is marked deformity the diagnosis is not difficult but in most cases a positive diagnosis can only be made by the use of the X-ray.

Treatment. If there is displacement of the fragments the leg should be flexed from the thigh, and deformity should be reduced by extension, counter-extension, and manipulation, the foot-being subsequently fixed in an extended position at a right angle to the leg. There is, however, usually such marked swelling following this fracture, that much manipulation, or the application of an immovable dressing, is not desirable for at least a week or ten days. After reduction of the swelling, a plaster of paris dressing should be applied and retained for about six weeks. More or less impairment in the motion of the ankle joint is apt to result, and great care should be exercised that the foot is kept as nearly as possible at a right angle to the leg, for in this position the foot will be most useful if ankylosis should occur.

Compound fractures of the astragalus are very serious injuries, and generally demand excision or amputation.

Patient, Mrs. G.; age 27. On September 4, 1904, while riding in heavy road wagon, up a hill, the horses became frightened and backed the wagon down over an embankment at the side of the hill, the wagon upsetting and throwing her violently to the ground. She struck the ground with her full weight on the left foot, the wagon evidently falling across her foot, as there was a mark on the skin over the external malleolus and this bone seemed to be forced down onto the astragalus. I was called to attend her the day following the accident and found her foot and ankle greatly swollen, much inflamed, very

sensitive to the touch and constantly pained her. I also noticed blebs on the skin over the injured area and, on a more thorough examination, elicited crepitus, but was not able to tell what bone was fractured, only being able to make a positive diagnosis by the use of the X-ray, as shown by the accompanying skiagraph.

This being a serious accident and one requiring constant attention, for a time at least, and as the patient was at a ranch across Lake Washington, where she had been spending the summer, I advised her immediate removal to the hospital, where, after using appropriate treatment for about a week to diminish the swelling, I put the foot in a plaster of paris dressing, being careful to fix it as nearly as possible at a right angle to the leg. This dressing I removed after about two weeks, replacing it immediately with another similar dressing and allowing this last to remain about four weeks longer, the patient in the meantime getting about on crutches, and, in fact, going back to the ranch, where she could remain just as quietly as at the



Fracture of Astragalus, showing separation between it and tibia and callus at front of joint.

hospital and her general health would not suffer. After removal of the last dressing I found almost complete ankylosis of the ankle joint and advised gentle massage to overcome it as much as possible. This was continued for about two weeks, with only, however, partial success, the formation of new bone, as shown by the skiagraph, preventing complete limbering of the joint. I now had the patient, while using her crutches, put more weight on the foot each day, finally having her discard the crutches, using only a cane for support, the foot in the meantime improving quite rapidly until she could, by December 15, about three months after the accident, walk without the aid of either crutches or cane and with only a very slightly perceptible limp.

Four months after the injury she attended a dancing party and danced several numbers. In the course of six months or a year, the chances are quite favorable that she will be able to walk with scarcely any lameness.

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JAMES B. EAGLESON, M. D.

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NO. 2

AN OPPORTUNITY FOR SCIENTIFIC INFANT FEEDING.

The advent of the Pure Milk Dairy in Seattle affords, for the first time, an opportunity for scientific infant feeding. This dairy has the support of some of our most influential citizens, and its object is to supply a pure, rich milk, and is not primarily a money-making undertaking.

The milk is obtained from tested Jersey cows and under the most cleanly conditions pertaining to the animals, stables and paraphernalia. The milk is drawn into covered pails, through a small aperture in the top, and falls through sterile cheesecloth into the bottom of the pail. It is immediately aerated and cooled to 40 deg. Fahr., is put into bottles at the farm and kept at the above temperature on ice until it reaches the consumer. The milk averages 5 per cent. butter-fat and contains but 2,000 to 4,000 bacteria to the c.c.—an extraordinary showing.

For the sake of convenience and accuracy in infant feeding, analyses have been made by Chemist Arthur Smith, of our society's laboratory, to determine the percentages of fat in the different layers of the top-milk in the quart bottles, at the time of its arrival at the consumer (morning's milk). The upper nine ounces should be removed at the time of the milk's arrival, by a little dipper (after Chapin) which may be obtained of the dairy.

From this upper nine ounces the proper proportion of fat and proteids may be obtained for the first three months of infantile life by the following dilutions: One part of top-milk with 5 parts

of water gives fat 2.1 per cent., proteids 0.6 per cent., suitable for feeding from the sixth to the eleventh week. These formulae are with 4 parts of water, gives fat 2.6 per cent., proteids 0.8, suitable for feeding from the second to the sixth week. Diluted with 3 parts of water, gives fat 3.2 per cent., proteids 1.0 per cent., suitable for feeding from the sixth to the eleventh week. These formulas are intended only for normal children and are similar to those recommended by Holt, than whom there is no higher authority. Instead of water, barley water, dextrinized gruel or lime water may, of course, be used. Cane sugar is added in the proportion of 1 part to each 20 parts of milk-mixture, giving about 6 per cent. of sugar in the mixture.

For feeding from the eleventh week to the fifth month, the upper pint of the quart is removed with the dipper from the morning's milk on its arrival. This top milk is then diluted with one and three-quarters parts of water and the same proportion of sugar added. The result gives, fat 3.4 per cent., proteids 1.45 per cent., sugar 6.5 per cent.

The formula for feeding from the fifth to the tenth month is obtained by simply pouring off the upper pint from the bottle when it arrives, and mixing it with an equal quantity of water. This gives the following percentages: fat 4.0, proteids 2.0, sugar 7.0 (if sugar is added as above),

It is the desire of the dairy to fill prescriptions for milk-mixtures, written in percentages of fat, proteids and sugar, if there proves to be any demand for such work, following the example of the Walker-Gordon laboratories in the chief cities of the East. It is the intention to mail physicians of Seattle cards showing what proportions of top-milk and dilutant will make the various percentages of fat and proteids required for the different ages of the normal infant. In this way—as the food, kind of animals, and so the composition of the milk, will remain very constant—a great burden will be lifted from the physician, and he will be able to be sure of a purity and accuracy which has hitherto been impossible to secure. If so desired, it is hoped that the dairy will be able to supply any milk-mixture suitable for any healthy infant, if only the age and weight of the baby be given—provided the physician does not care to write a prescription.

The purity and keeping qualities of the milk are such that it will be possible for a traveler to carry a complete supply of fresh milk on ice for a baby going from Seattle across the continent, or not improbably to Europe or the Orient. The Pure Milk Dairy

is also taking steps to furnish modified milk to needy parents with sick infants, during the warm months, free of charge, on the receipt of a recommendation of a physician for such gratuity. The direction of the care and production of the milk is entrusted to Dr. Winslow, and the business management has been undertaken by Mrs. E. W. Andrews, 1306 Minor Ave. Telephone, Green 756.

WHAT SHALL BE DONE WITH THE OSTEOPATHS?

Men and women, calling themselves osteopaths, are practising medicine in all parts of this country. In many places they have been ignored, elsewhere they have been prosecuted as illegal practitioners. They have successfully appealed to several Legislatures for legal recognition as practitioners of osteopathy. They are an active force and an appreciable factor in medical matters of the state of Washington. We may as well seriously consider a plan for their disposition as medical practitioners.

Their success with the public would imply some virtue in their claims and mode of practice. If such exists we, as level headed physicians, should avail ourselves of any advantages they possess. While they may claim, in order to evade the Medical Practice Act, that they do not practice medicine, it is well known that they treat all forms of disease and infirmity that present themselves. Furthermore, by reference to the catalogues of their schools of teaching, one finds that they profess to teach every branch of medicine and surgery that is taught in any other form of medical school. Their graduates, therefore, should consider themselves competent to cope with all forms of ills to which human flesh is heir, as do the graduates of all other medical schools, with the added advantage of knowledge in the mysteries of osteopathy, of which we, to the present date, confess ourselves ignorant.

Being in fact, then, before the public on the same basis as all other practitioners of medicine, they should be required to prove the same qualifications as they for practice, by passing the same examination for a license so to do. It would be as unjust to assign them a separate Examining Board as for homeopaths, eclectics and the old school thus to be separately considered. All of these latter appear before one Board and the plan seems to work to the satisfaction of all concerned. We would favor legislation requiring them thus to be licensed, otherwise placing them in the same class as other illegal practitioners and subject to prosecution for being such. Since they will thus be required to pass examination on the

usual branches, in justice they should be entitled to a representative on the Examining Board.

Another suggestion, that will bring into line everyone treating human ills under whatever designation he may appear before the public, is to amend the existing Medical Practice Act by substituting for the present definition of, "the practice of medicine," that suggested by a committee of the American Medical Association, and already adopted by the Territory of Arizona. This definition is so explicit that it covers every form of treatment, manipulation and device applicable to the human system. Under it the christian scientist, the osteopath, the faith curist and every other form of irregular practitioner will practice illegally unless he secure a license from the Examining Board, and will hence be subject to prosecution for this offense.

Either one of these methods seems to us the most reasonable and satisfactory disposition of the matter that has yet been suggested and we wish to urge the profession of the state to sustain the efforts of our representatives in the Legislature to accomplish some such desirable results.

THE PURPOSE OF THE COUNTY MEDICAL SOCIETY.

The county medical society, as it is found in different sections of our land, presents various reasons for its existence. At one time it is an aggregation of kindred spirits for mutual admiration and profit; again a select number of professional brethren, imbued with a scientific spirit, utilize the society for profitable dissemination of medical lore. Oftentimes the lines are closely drawn as to eligibility and personalities enter in to ones judgment on the admission of a fellow practitioner, often to the unjust condemnation of the latter. We are heartily in accord, in this matter, with the views expressed by *The Wisconsin Medical Journal*, of Dec., 1904, anent the visit to their state of Dr. McCormack, the national organizer of the A. M. A.

It states as follows: "The County Society is an organization which was created not with the essential aim of carrying on scientific work; its prime object is rather to gather into one large influential body all right-minded physicians. There should be no allopaths, no homeopaths, no eclectics. It should be composed of physicians without creed distinction, hence of men whose ultimate aims are identical. Petty jealousies and animosities, a characteristic of most professions in which segregation is forced upon its members, should here be forgotten, for the common good

stands uppermost. It should be this society's function to work out the problems that confront the physician, and by united action to so influence public opinion as to earn and demand a higher position in the community, and thereby enlist its sympathy in promoting favorable and necessary legislation."

By following such a policy the physicians of Washington would be united into one large and powerful body, the State Medical Association, composed of the live component county societies. But what is the real situation at present? While the physicians of this state number about 1,000, the membership of the State Association is less than 300. Can such a limited body expect or demand legislation or present any claims for recognition as the representative of the medical profession of the state?

On other occasions we have urged the formation of county societies where they do not now exist and a sufficient number of physicians is available for their organization. But the most important field for united effort lies in the cities of the state, where the physicians are found in large numbers and where the county societies enroll only a portion of them. It seems to us that the most important work for these societies for the coming year is to gather into their membership every eligible, reputable physician in their midst. Thus will be established a powerful and influential body that will be in a position to secure local and state legislation in the interests of public health and sanitation beside conserving the interests of the medical profession.

Whenever, by reason of enlarged membership, the society becomes unwieldy for successful scientific work, it will be timely to establish sections of smaller bodies of physicians possessing similar interests where special work can be conducted. But first of all let us assemble in the county society and make that the unit of organization.

MEDICAL NOTES.

Annual Meeting of the Washington Medical Library Association. The annual meeting of the Association was held January 10, in Seattle. Dr. Eagleson presented a report of the business and financial condition of NORTHWEST MEDICINE for the past year, showing it to be on a substantial footing and with favorable prospects for the future.

The following trustees were elected for the ensuing year: C. W. Sharples, President; H. M. Read, Secretary; E. E. Heg, G. H. Randell and W. S. Durand (of Everett). The trustees elected C. A. Smith, Editor-in-Chief, and J. B. Eagleson, Managing Editor, of NORTHWEST MEDICINE for the ensuing year.

Annual Banquet of the King County Medical Society. This annual gathering was held on the evening of Jan. 9, at the Rainier Club, in Seattle. It was the largest affair of the kind in the history of the society, being attended by seventy-eight. The Pierce County Society was represented by Drs. Hicks, Coleman, Quevli, Love and Curran. W. S. Durand represented the Snohomish County Society. It was an entirely informal affair, the seating of the tables assuring such a condition. Instead of the conventional, long table, groups of men collected about a number of small ones. Good fellowship and the renewal of acquaintances characterized the evening. The retiring President, Dr. Heg, acted as toast master, calling for impromptu speeches from numerous members and the visitors. This will be remembered as one of the happy occasions in the history of the society.

Annual Banquet of the Snohomish County Society. This was held at the Hotel Mitchell, Everett, on the evening of January 2. It was attended by nearly all the physicians of Everett, Snohomish and adjacent towns. C. A. Smith, of Seattle, represented the King County Society. W. C. Cox acted as toast master and introduced the following toasts: The State Medical Association, W. S. Durand; What can the Medical Men of the State of Washington do to Promote the Success of the A. M. A. at Portland? C. A. Smith; The County Medical Society, C. A. Mead; The Physician in Government Service, J. A. Durrent; The Doctor in Politics, F. R. Hedges; Doctor and Druggist, J. L. Manning; The Country Practitioner, E. M. Adams; The Ladies, L. L. Stephens.

Annual Meeting of the Washington State Board of Health. This meeting was held at Olympia, January 18. The Board is composed of J. M. Semple, President, Spokane; E. E. Heg, Secretary, Seattle; J. R. Yocom, Tacoma; W. S. Durand, Everett; S. B. Nelson, Pulman. The term of C. P. Gammoy, of Walla Walla, has expired but his successor has not yet been appointed. The Board purposes to have a bill introduced into the Legislature concerning the compilation of Vital Statistics. It requires the obtaining of a burial permit before interment and regulates, in detail, all matters pertaining to births and deaths, which are placed under the control of the State Board of Health. An amendment will be proposed to the County Health Office Act, whereby the officers will be appointed for a definite period and at a fixed salary. Outside of cities of the first class, Health Officers in incorporated cities will be under the direction of the County Health Officer and all of the latter will act under the supervision of the State Board of Health.

Death of Dr. R. W. Schoenle. Dr. Schoenle died of pulmonary tuberculosis, January 24, at the Altadena Sanatorium, Pasadena, Cal. An extended notice of him and his life in Seattle will appeal in our next issue.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. H. Lyons, M. D.; Secretary, C. H. Thomson, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of Jan. 2, President Heg being in the chair. Forty-seven members were present.

The annual report of the Secretary was read and referred to the Auditing Committee. The report of the Treasurer was read and referred to the same committee. The report of the Laboratory Committee was read, detailing the work of the laboratory for the year and recommending that the profits of the laboratory be hereafter devoted to the purchase of scientific apparatus for the use of the Society and that, since an amount of work is done for the city which, if paid for at the usual rates would bring an income five times that now received, the city be petitioned to increase the salaries paid to the laboratory workers. The report was referred to the Auditing Committee with instructions to report on the recommendations.

A communication was read from the Whatcom County Society requesting an endorsement of their resolutions to the legislature for the passage of an act regulating the practice of midwifery and that the office of coroner be held only by a physician. This was referred to the Committee on Public Health and Legislation for future report.

The Committee on Public Health and Legislation recommended the passage of an act by the Legislature to rescind the reciprocity clause in the Medical Practice Act; to grant temporary licenses to qualified practitioners that would be in force till the time of the next examination; that the examination fee be raised to \$25, that, with suitable restrictions, osteopaths be required to pass an examination for practice of osteopathy before the existing Examining Board. After general discussion these recommendations were adopted.

A. G. Greenstreet was elected to membership.

The following officers were elected for the ensuing year: President, J. H. Lyons; Vice-President, J. B. Loughary; Secretary, C. H. Thomson; Treasurer, F. M. Carroll.

C. A. Smith spoken on the desirability of increasing the membership of the society and to include all eligible practitioners. It was voted to appoint a membership committee of five for this purpose.

Committees.

The following standing committees were appointed by the president for the ensuing year:

Program and Scientific Work—C. H. Thomson, G. W. McLoughlin, H. C. Ostrom, I. A. Parry.

Ethics and Admission—T. W. Sloan, J. C. Moore, F. A. Churchill, O. Edwards, H. O. Loe.

Public Health and Legislation—J. B. Loughary, B. E. Hoye, C. W. Sharples.

Auditing—G. H. Randell, C. A. Smith, N. D. Pontius.

Membership—G. S. Peterkin, L. H. Redon, D. Buckley, R. L. Keith, D. DeBeck.

Laboratory—K. Winslow, S. J. Holmes, H. M. Read.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of January 16, President Lyons being in the chair. Thirty-six members and visitors were present.

The following were elected to membership: Frances L. Reyberge, A. G. Snow, F. L. Horsfall.

The resignation from the society of R. W. Schoenle was read, offered on account of his moving from the city. The same was accepted and it was voted to elect him as an honorary member.

Clinical Cases.

Pseudo-Muscular Hypertrophy.—This case was presented by F. T. Maxson. A boy of 8 years. He did not walk till 3 years of age. Then it was soon seen that, in rising, he "walked up on himself." This condition has grown steadily worse, till now he can stand with difficulty. The calves of the legs are very much hypertrophied while the upper part of the body is much emaciated.

Juvenile Atrophy.—H. G. Lazelle presented a boy of 10, weight 80 pounds, youngest of five children, history negative. Had croup at 18 months, after which he could not talk till nearly 5 years old. Two years ago his shoulders began to be thin, had no strength in arms and stumbled easily. He walks unsteadily and is easily pushed over.

Papers.

Cerebral Cysts.—With report on ten cases. William House, of Portland, read this instructive paper. He exhibited a series of brains, illustrating various pathologic phases of his subject as described.

He detailed the histories of two cases, beside referring to a series of other interesting cases. He particularly emphasized the fact that it is not justifiable to conclude every case of cerebral tumors syphilitic in which a specific history is obtainable. Some of these cases are subject to cure by operative procedures, as illustrated by instances presented.

The paper was discussed by Drs. Willis, Miles, Peterkin, Read, Winslow and Pontius, most of whom cited cases of injuries resulting in cerebral cysts that were proven by autopsy or successful operative measures.

Tick Fever, with Report of a Case.—R. M. Stith presented this paper, giving a history of the disease, followed by a description of his case and the points of diagnosis.

PIERCE COUNTY MEDICAL SOCIETY.

President, C. Quevli, M. D.; Secretary, A. deY. Green, M. M.

The annual meeting of the Pierce County Medical Society was in the parlor of the Tacoma Hotel, January 3.

The following officers were elected for the ensuing year: President, G. S. Hicks; vice president, L. L. Love; secretary and treasurer, A. deY. Green; board of censors, Drs. Curran, McGeer and Shaver.

Dr. Robert Garnett's application was read for membership. Dr. Irwin A. Wichbrod's application having been reported on favorable by the board of censors, he was elected a member.

The Pierce County Medical Society met in the Parlors of the Tacoma Hotel on Jan. 17, 1905. The new President, Dr. Hicks, called the meeting to order, who, with a few choice words, thanked the society for electing him President and, at the same time, instructed the Secretary to take down the names of those present at each meeting, to see who helped to advance the interest in this society.

Dr. Allan spoke briefly on his visit in the East, especially mentioning the Mayos' operation for varicose veins.

Dr. McGeer entertained the society by telling about the work he saw done in New York, on his recent visit there. He was especially pleased with Dr. Wainright on physical diagnosis and Dr. McGrath on Surgery.

Dr. Quevli, as the retiring President, delivered his annual address.

Dr. Hicks appointed, on the committee to look after legislation, Drs. Shaver, Quevli and Allan.

Those present were Drs. Hicks, Curran, McNerthney, J. R. Brown, Shaver, Love, Garnett, Case, Alice Smith, McCreery, Keller, McGeer, Rynning, Hill, C. Balabanoff, Annie Reynolds, Van Vetchen, Quevli, McKone, Green and E. M. Brown.

SNOHOMISH COUNTY MEDICAL SOCIETY.

President, C. A. Mead, M. D.; Secretary, James Chisholm, M. D.

The annual meeting of the Snohomish County Medical Society was held at the office of President Mead on the evening of January 2. The following officers were elected for the ensuing year: President, J. E. Stauffer; Vice-Presidents, P. L. Opsvig, L. L. Stephens, J. A. Durent; Secretary and Treasurer, F. R. Hedges; Executive Committee, W. C. Cox, E. M. Adams, C. A. Mead.

It was voted to hold the next meeting of the society at the city of Snohomish, this being the first meeting in its history held outside of Everett. The society adjourned to the Hotel Mitchell for its annual banquet.

WHATCOM COUNTY MEDICAL SOCIETY.

President, F. J. VanKirk, M. D.; Secretary, W. N. Hunt, M. D.

The regular monthly meeting of the Whatcom County Medical Society was held, January 9, at Odd Fellows' building, Bellingham, with President Biggs in the chair.

The election of officers for the year 1905 being in order, resulted as follows:

President, Dr. F. J. Van Kirk; vice president, Dr. W. D. Kirkpatrick; secretary, Dr. W. N. Hunt; treasurer, Dr. S. H. Johnson.

Committee on Admission and Ethics, Drs. Markley and Compton.

Committee on Inquiry, Drs. Reed and Hunt.

Executive Committee, Drs. Axtell and Markley.

The address of the retiring president, Dr. D. E. Biggs, was devoted to a report of a most interesting case of apparent acute intestinal obstruction which made a complete recovery without operation.

The paper was discussed by Drs. Holt, Markley, Smith and Johnson.

Adjourned to meet February 13.

SOUTH IDAHO DISTRICT MEDICAL SOCIETY.

President, H. A. Castle, M. D.; Secretary, E. W. Kleinman, M. D.

The mid-winter meeting of the South Idaho District Medical Society was held at the Bannock Hotel, Pocatello, Idaho, January 5, beginning at 10:30 a. m.

The proposed bill for a State Board of Health and Vital Statistics was, after discussion, referred to a committee of Drs. Maxey, W. F. Howard and Wright, who have since sent it to the Legislature.

The following program of papers and discussions was presented:

Call to order, President H. A. Castle, M. D.

Quarterly report, Secretary-Treasurer E. W. Kleinman, M. D.

Reports of committees.

Reception of new members.

Reading and discussion of the following papers:

Radioscopy of the Chest.—Ed. E. Maxey, M. D., Boise.

Discussion of X-Ray work by the Society, opened by Franklin Le Rue, M. D., Idaho Falls.

Erysipelas.—O. B. Steely, M. D., Pocatello.

Discussion opened by E. W. Kleinman, M. D., Shoshone.

Scarlatina Complicated by Diphtheria.—T. A. Snook, M. D., Blackfoot.

Discussion opened by F. W. Mitchell, M. D., Blackfoot.

Eugenics.—M. F. Howard, M. D., Pocatello.

Discussion opened by O. J. Allen, M. D., Bellevue.

Infant Feeding.—W. F. Howard, M. D., Pocatello.

Discussion opened by H. W. Clouehck, M. D., Turnfalls.

Etiology of Appendicitis.—W. A. Wright, M. D., Pocatello.

Discussion opened by M. M. Harshbarger, M. D., St. Anthony.

Treatment of Appendicitis.—J. H. Bean, M. D., Pocatello.

Discussion opened by W. F. Smith, M. D., Mountainhome.

Acute Mania.—John W. Givens, M. D., Blackfoot.

Discussion opened by Minnie F. Howard, M. D., Pocatello.

Primary Repair of Pelvic Floor.—H. A. Castle, M. D., Pocatello.

Unannounced papers and case reports.

Executive session.

Selection of time and place of next meeting.

Unfinished business.

Adjournment.

Banquet and relaxation.

WANTED.

Inquiries have been made for the following numbers of NORTH-WEST MEDICINE, to complete files: January, March, April, September, 1903. If any of our readers have copies for these months which they do not care to preserve, they will confer a favor by sending them to the managing editor or by writing him that they have them for disposal.

RECENT PROGRESS IN MEDICINE AND SURGERY.

OBSTETRICS AND GYNECOLOGY.

Edited by

P. W. Willis, M. D.; W. A. Shannon, M. D.

Gastroptosis, with Special Reference to the Surgical Treatment: The Operation of Gastropexy. By Beyea, *American Medicine*, Oct. 8, 1904. The writer discusses the subject of gastroptosis and gives the technic of an operation devised and performed by himself in 1898. He says that this is rather a common disease, and a common cause of chronic invalidism. He divides the causes into predisposing and exciting, the former consisting of congenital weakness and hereditary predisposition. The exciting causes are tight lacing, rapid emaciation and changes in intra-abdominal pressure.

He divides gastroptosis into four classes, as follows:

"1. Gastroptosis with musculomotor sufficiency, the tonicity of the walls of the stomach being so great as to be compensatory; no symptoms result, and the patient remains in good health. These are common cases. 2. Gastroptosis with gastromotor insufficiency, and the production of symptoms of a more or less severity. 3. Gastroptosis with secondary dilation of the pyloric end of the stomach, gastromotor insufficiency, and the production of symptoms of generally a more severe type. 4. Primary general dilation of the stomach, with secondary gastroptosis, gastromotor insufficiency and secondary gastroptosis, gastromotor insufficiency and again the production of symptoms. In the latter instance it is assumed that gastroptosis is an acquired condition."

He sums up the indications for treatment as follows: "An attempt to restore the position of the stomach; restore the tonicity of the gastric wall and thus lessen the dilation; to prevent fermentation of food; and support the abdominal walls." Tight lacing should be forbidden, modern straight front corsets should be worn, clothing supported by the shoulders, rest one hour after meals, small amounts of easily digested food at frequent intervals and should also advise a carefully fitted abdominal binder. In the more severe cases, surgical treatment will be necessary. He describes in detail his first operation, and gives his conclusions in reference to it as follows: "The principle of this operation is that by placing three rows of interrupted silk sutures from above downward, and from right to left through the gastrohepatic and gastrophrenic ligaments; a single, broad, transverse fold of plication is formed in the ligaments, shortening these ligamentary supports and elevating the stomach to normal position. The normal ligaments are shortened and the stomach elevated to position without in the least disturbing the physiologic mobility of the organ."

He advises, in conjunction with this operation, a nephropexy, providing there is a floating kidney.

WILLIS.

Lacerations of the Pelvic Floor. By Burtenshaw, *Journal of Am. Med. Assn.*, Dec. 3, 1904.

The author attributes failure in primary operation on the perineum to one of three causes, as follows: "First, failure on the part of the operator to appreciate the extent and direction of the subcutaneous tear; second, failure to approximate the edges of the torn muscle and fascia; an overstretching of the muscles of the pelvic floor, which cannot be overcome or modified except by denudation and suturing of the vaginal wall, an unjustifiable procedure at this stage of the puerperium."

He advises, in the repair of the perineum, the deepsweeping suture and believes that this, with the exception of overdistension, will reduce failures to a small percentage. He maintains that the operation of Emmett does not accomplish all that it is supposed to, and believes that equal good is accomplished by operations which are more simple and less tedious. He concludes as follows:

"Personally, I believe that the Hegar operation, in which the denudation is carried well beyond the crest of the rectocele and the sutures are sweepingly inserted across the vagina, will, in the great majority of cases, prove the most satisfactory. The technic is simple, and may be carried out in less than half the time required by that of Emmett; the slack of the vaginal wall is taken up from side to side, as it should be; the weakened perineal body is strongly reinforced, and the introitus is reduced to its normal size. In all cases the denudation should extend to the mucocutaneous junction. Failure to obtain the results enumerated may be attributed to improper denudation, incorrect suturing, or to low vitality of the patient." WILLIS.

Injuries to the Rectum Caused by Gynecologic Examinations. By Howard Kelly, M. D., *Journal of Am. Med. Assn.*, Nov. 26, 1904.

The doctor discusses the question of injuries during gynecologic examinations. He states that a papillary ovarian cyst or vascular cystic sarcoma may be ruptured, and thus disseminate their malignant contents. He says that he has seen an extrauterine pregnancy ruptured in this way, and that pelvic abscesses are frequently ruptured. This applies also to those of the appendix. He has also known of a liver having been ruptured with a fatal result. He does not take up the question of injury due to instrumentation, but lays special stress upon injury to the rectum which he says is the most delicate of the structures in that locality, hence most liable to serious injury. He cites four cases in which the examining finger was passed through the bowel wall into the peritoneal cavity. Elderly, stout women are predisposed to this injury on account of lack of muscular tone and friability of the structures. The proper treatment is to open the peritoneum and suture the rent from the peritoneal side. He does this either by the vaginal or the abdominal route. He also advises dilatation of the anal orifice. To avoid such accidents, he advises gentleness in the examination. If the bowel has been emptied previously, and the patient placed in a knee breast posture with speculum introduced, this distension will remain after returning to the dorsal position, and aid in preventing such an accident.

WILLIS.

SKIN DISEASES.

Edited by

L. H. REDON, M. D.

Dietetic Treatment in Skin Diseases The Monthly Cyclopedia of Practical Medicine, July, 1904. (O. Lassar, Dermatolog. Zeitschrift, Vol XI, No. 3, 1904.)

The writer claims that dietetic measures are of greatest importance for the cure of various cutaneous affections. Psoriasis, for instance, is unmistakably benefited by refraining from meat. Cheese is liable to aggravate certain skin diseases or possibly induce them. All kinds of erythemata and rashes with exudation are benefited by calomel purges, followed by a course of mineral waters. Salicylic medication is a valuable adjuvant. The salicylic acid seems to attack the morbid processes like an antitoxin, and paralyses the evil affects of the poisons circulating in the blood. The subject must learn what articles of food he must avoid, and should strive to eat at regular intervals and in small amounts. A single hastily eaten meal, when he is over fatigued, overheated or irritated, may affect him like ingesta containing ptomaines. In case of prurigo the nervous system must be soothed and sleep restored. Eczema frequently develops after the prurigo, and both may be avoided by keeping the bowels in good order, avoiding excess of bread and potatoes, and all other causes tending to induce flatulence. Prurigo patients are usually constipated with hard stools.

The tendency to furuncles and plegmons in diabetes and gouty subjects may be combated by putting the patients on a sugar-starvation diet. So soon as all substances are avoided that form or become transformed into sugar, the tendency to furuncles subsides. The excess of sugar in the tissue affords fine culture media for the pyogenic germs. When this excess is avoided the germs cease to colonize in them, irrespective of whether the elimination of sugar is physiologic or pathologic. The same reasoning and conclusions apply also to uric acid in gout. Any intoxication may affect the skin and reduce its resisting power.

The writer defines scrofula as a lesser resisting power, due to inherited weakness and insufficient nourishment or care, and insists that everything which tends to enhance the resisting powers aids in curing the local affection. Obese subjects should diet to reduce their weight, and by this means avoid cutaneous lesions from friction between folds of the skin.

REDON.

Pityriasis Rosea.—By Harvey P. Towle, M. D., The Journal of Cutaneous Diseases, April, 1904.

More than 200 cases of pityriasis rosea were collected by the author and, as far as possible, he noted the character of the lesions, their distribution, the presence of a plaque primitive, the month of occurrence, the sex, the age, the presence of prodromata and signs of accompanying general disturbance, the presence of itching, recurrence, race and occupation. In five cases blood examinations were made and in two cases a histologic examination. The eruption occurred in two forms, a macular and circinate, with about equal frequency. In most cases the eruption was general over the trunk and upper parts of the extremities. In some of the milder cases, however, it was limited to one region, as example to one arm. Although the eruption occurs rarely on

the face, in one case of the series it was limited to the face and the neck, while in eight other cases of an extensive general eruption the face was also involved. The hands and feet are never invaded.

As to the occurrence of the plaque primitive, record of it was found in 25 cases. It occurs most frequently on the trunk. According to the figures given by the author, season appears to exert very little influence. Forty-seven cases occurred in the winter, forty-six in the spring, and forty in the summer. As to sex, sixty-six per cent. affected were females as against thirty-four per cent. males.

According to the figures given, the disease was most frequent between the years of twenty and thirty.

Prodromata were almost entirely absent. Itching, although present, was never a marked symptom.

Reports of recurrences are very rare in the literature of the disease. There was one undoubted case in the series reported by the author. Changes found in the blood were not regarded as being characteristic.

REDON.

A Case of Reinfection of Syphilis.—By Herman G. Klotz, M. D., *The Journal of Cutaneous Diseases*, July, 1904.

F. K., born 1847, in Germany, first came under observation of the author in the summer of 1882. He had been admitted into the hospital for a large gummatous infiltration over the middle portion of the sternum and the adjoining ribs of the right side. There were several intumescences of the right tibia and a number of peculiar, firm strands and plates imbedded in the extensor muscles of both thighs, principally the left quadriceps femoris. From 1882 to 1895 the patient was subjected, at various times, to anti-syphilitic treatment, comprising both mercury and the iododes.

After the lapse of more than six years the patient again came under observation, showing a sore on the prepuce, which developed ten days after exposure by sexual intercourse. In due time this sore gave unmistakable evidence as to its nature. It was a typical primary lesion, accompanied by a moderate but distinct enlargement of the inguinal glands. Then followed a typical syphilide. On the throat the condition of a moderate angina was found. Altogether a combination of symptoms characteristic of secondary syphilis.

As to the question of infection of syphilis the author believes that we only need the proof of undoubted symptoms of syphilis at a certain time before the appearance of the second chancre, by actual observation. He apparently agrees with what R. W. Taylor writes, in his edition of 1900, that no case is worthy of consideration in which the interval between the cure or apparent cessation of the first attack and the onset of the second one is at least not under five or six years.

In conclusion, the writer calls attention to the decidedly greater and more lasting influence of energetic mercurial treatment on tertiary manifestations in comparison with iodides alone.

REDON.

BOOK REVIEWS.

Edited by

Kenelm Winslow, M. D.

In the Year 1800. By Samuel Walter Kelly, M. D. The Doctor's Recreation Series, Vol. III. The Saalfeld Publishing Co., Chicago, Akron, Ohio, and New York. 10x7 in.; 421 pp.; cloth; \$2.50.

This book is one of the series written for the doctor's edification when off duty, the preceding volumes of which we have already reviewed, and purports to be the autobiography of a Dr. Jonathan Brush, but one would not be accused of being over-suspicious if he pronounced it a novel.

From a medical standpoint the book is of interest in the description of the state of medical science—or rather art—at the beginning of the nineteenth century. The general practice of the day is so well pictured in the use of bleeding and other heroic measures that one is almost purged sympathetically by the calomelian atmosphere depicted. The beginnings of vaccination, the horrible tortures inflicted by amputations, with the necessary accompaniments of lashing the victim to the operating table, and screaming and fainting, in this pre-anesthetic time, are portrayed in a feeling manner. The rise and culmination of one of the great medical fakes of the period—the Perkin's Tractors—add a verisimilitude to the tale and remind one that the age of superstition is still rampant.

On the romance side we have a villain, a murder resulting from the same, and two heroines, the first of whom succumbs to the villain and the other to the autobiographic hero of the tale. Looked at from the view of the modern style of novel, the story drags a little at times, but taken as a whole, with its medical and historic interest, the interest is sustained. The crudities of the early dissecting room, with its attendant body-snatching-mode-of-supply, are described and involve the hero and his friend in much trouble. The work is well gotten up, with good paper, clear print and wide margins, and is fully equal to its predecessors as a source of recreation for the doctor.

WINSLOW.

Progressive Medicine, Vol. IV, December, 1904. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 374 pages, 79 illustrations. Per annum, in four cloth-bound volumes, \$9.00; in paper binding, \$6.00; carriage paid to any address. Lea Brothers & Co., Publishers, Philadelphia and New York.

It gives us great pleasure to again bring before the readers of NORTHWEST MAGAZINE this unexampled critical review of medical progress. As we have pointed out before it is not a mere summary of current medical literature but possesses two unusual features: First, the whole domain of medicine—including of course surgery and the specialties—is reviewed according to a regular method, and second, the review is in the hands of the most competent specialists who

critically examine and comment on the probable value of recent work in the various departments of medicine. In the present volume are contained sections on Diseases of the Digestive and Genito-urinary tracts, on the Surgery of the Extremities, and a Practical Therapeutic Referendum.

We may glance at a few of the subjects which happened to strike the reviewer's attention. J. Dutton Steele edits the section on digestive diseases. Matthieu shows that the coating on the tongue is not a reflex of the condition of the digestive organs, for the surface of the tongue is analagous to the skin in structure, but represents a lingual desquamative dermatitis due to intestinal intoxication. Among the most valuable advances in diagnosis is the new test for "occult" blood in the stools and stomach contents indicative of cancer and ulcer. Osler's series of cases of abdominal pain, simulating many common abdominal diseases but forming entities associated with erythema, are remarkably interesting. Musser's masterful paper on, Abdominal Pain, is noticed at length, and Mayo Robson's new urinary test for pancreatic diseases receives due consideration.

Bloodgood devotes most of the space in his section to osteomyelitis, tumors and surgery of the joints. Great advances have been made in extending our knowledge of the etiology and pathology of osteomyelitis and corresponding changes have been wrought in the surgical treatment of this disease. Nichol's notable paper of the surgical treatment of this disease.

Belfield presides over the section on Genito-urinary Diseases but space will not permit of a review of reviews. As interesting to our local physicians, the comment on G. W. Hawley's article in the June, 1904, number of the *Annals of Surgery*, on Cancer of the Prostate, will prove of interest. Dr. Belfield writes that Hawley, of Seattle, presents the "most elaborate, judicial and lucid review of carcinoma of the prostate yet published."

John Rose Bradford conducts the section on Diseases of the Kidneys, and H. R. M. Landis has charge of the Practical Therapeutic Referendum.

WINSLOW.

Practical Dietetics. Diet in Health and Disease. By A. L. Benedict, Buffalo, New York, Member American Gastro-Enterological Association, Medical Society State of New York, etc. 12 mo.; 400 pages; green buckram, gilt side title and top; \$1.50 net. Chicago, G. P. Engelhard & Co.

This brief but comprehensive treatise considers dietetics by presenting the underlying physiologic principles and facts upon which the nourishment of the body depends in health and disease. It ignores all receipt and cook-book methods and is admirably written in its judicious sifting of the tares from the wheat, and in its broad and scientific spirit. The following subjects are considered: Analyses of the body; Essential Nutrients, their absorption, storage and elimination; Dietetic Needs in Health; Food Requirements in Terms of Natural Foodstuffs and Specific Foods.

Some points of interest are brought out in the latter, as that among

civilized peoples bananas are the only form in which raw starch is ingested in any considerable amount, and that raw starch is absolutely indigestible in the stomach—hence their notable bad effect in children and those with weak digestions. The author states that the prejudice against pork is scarcely warranted and that, if similarity of diet counts for anything, pork should be the superior of beef for human diet and cites the fact that the cannibals of the South Pacific islands used to know pork and human flesh as short and long pork respectively. Under, Use and Value of Milk, the writer—after noting the dangers of impure milk—remarks caustically that the best milk can only be obtained “through individual care and implicit confidence must not be placed in dairies simply because part of the stock is held by physicians and a high price is charged.”

The food value of alcohol is likened to the value of kerosene as a fuel in an ordinary stove. The body is no more constructed for the regular oxidation of alcohol than a stove for that of kerosene. A small amount of either may be consumed, but such substitution is dangerous and only permissible in an emergency. Among other subjects treated are: Dietetics of the Period of Growth; Organotherapy; Diets in the Various Special Diseases and Special Methods of Introducing Nutrition. We heartily commend the book. WINSLOW.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR DECEMBER, 1904.

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Adams	1	0	5	1	3	0	2	0
Asotin	0	0	0	0	0	0	4	0
Chehalis	0	0	0	0	3	0	3	0
Cheban	0	0	3	0	7	0	0	0
Cowlitz	1	0	0	0	5	0	1	0
Douglas	0	0	3	0	5	1	0	0
Garfield	0	0	1	0	0	0	2	0
Jefferson	0	0	0	0	0	0	1	0
King	0	0	7	0	3	1	1	0
Kitsap	0	0	0	0	3	0	0	0
Kittitas	1	0	0	0	19	3	0	0
Klickitat	0	0	0	0	0	0	1	0
Lewis	0	0	0	0	0	0	2	0
Lincoln	0	0	3	0	0	0	2	0
Mason	0	0	0	0	5	1	0	0
Pacific	0	0	0	0	0	0	1	0
Pierce	0	0	0	0	7	0	1	0
Spokane	0	0	7	0	7	0	0	0
Wahkiakum	0	0	0	0	1	0	0	0
Walla Walla	0	0	0	0	10	2	1	0
Whitman	0	0	2	0	3	1	0	0
Yakima	0	0	0	0	0	0	2	0
Bellingham (city).....	0	0	0	0	1	0	2	0
Seattle (city).....	0	0	11	0	16	3	9	2
Spokane (city).....	2	0	11	0	44	1	4	1
Tacoma (city).....	0	0	13	0	7	0	15	1
Total	5	0	67	1	149	13	59	4
December, 1903.....	29	2	126	4	52	10	53	13
Total, 1904.....	295	5	1045	38	1324	151	1217	153
Same period, 1903.....	888		1086		334		447	

ELMER E. HEG,
Secretary.





ROBERT WOLFGANG SCHOENLE, M. D.

1868-1905

NORTHWEST MEDICINE

March, 1905.

ORIGINAL CONTRIBUTIONS.

PANCREATIC INFLAMMATIONS IN THEIR RELATIONSHIP TO CHOLELITHIASIS, AND THEIR TREATMENT.*

By A. W. MAYO ROBSON, F. R. C. S.

LONDON, ENGLAND.

Vice-President and Hunterian Professor, Royal College of Surgeons, England.

Among the many complications of gall stones, pancreatitis in its various forms is now known to be one of the most important, though the relationship has only comparatively recently been recognized. The bile ducts and the pancreas are so intimately related in their development and their anatomy that it can excite no surprise to find them frequently associated in their diseases; and though we frequently find cholelithiasis without pancreatic troubles, it is much less common to have inflammation of the pancreas, whether acute, subacute or chronic, without finding common duct cholelithiasis. The reason for this association is not far to seek; it is due to the junction of the common bile duct and the duct of Wirsung at the ampulla of Vater and their common opening into the duodenum, a channel always containing organisms ready under certain circumstances to invade and become virulent.

Pancreatitis is probably always a secondary disease and usually dependent on infection spreading from the common bile duct or duodenum. It may be asked, if common duct cholelithiasis and pancreatitis are so often associated, why should some cases of common duct obstruction go on for months or years without the pancreas participating?

I must ask you to excuse me for taking you back to the dissecting room for a few minutes, as though doubtless you are well

*Address in Surgery, read before the Canadian Medical Association, Vancouver, B. C., Aug. 24, 1904.

(By courtesy of **The Montreal Medical Journal.**)

acquainted with the normal anatomy of the pancreas, there may be some who are unacquainted with the great number of variations that may be encountered; which varieties may save a patient from or may commit him to pancreatitis should he be unfortunate enough to suffer from common duct cholelithiasis.

The common bile duct starting by the junction of the cystic and hepatic duct courses along the free border of the lesser omentum associated with the portal vein and hepatic artery, it then passes behind the first portion of the duodenum and soon comes into relation with the pancreas, which it either grooves deeply or passes through or behind, (Fig. 1.) before it pierces the wall of the second part of the duodenum, where it empties into the diverticulum of Vater along with the duct of Wirsung. It may be divided into four portions—

- (a) The supra-duodenal portion.
- (b) The retro-duodenal portion.
- (c) The pancreatic portion.
- (d) The intra-parietal portion.

The latter two only are important for our present purpose.

If the choledochus passes behind and not through the head of the pancreas the duct may escape pressure when the pancreas is congested or otherwise swollen; whereas if it pass through the gland, any congestion or swelling of the pancreas will, by pressing on the common bile duct, bring on jaundice with its various sequelae. Thus is explained to my mind many of the cases of so-called catarrhal jaundice, which may come on as an extension from gastro-duodenal catarrh, or in the course of a pneumonia, or during typhoid fever, influenza and other ailments, and which I believe to be often dependent on catarrhal inflammation of the pancreas leading to pressure on the bile ducts. In some cases I have proved this hypothesis to be correct at operations undertaken for chronic jaundice.

As the duct is completely embraced by the pancreas in 62 per cent. of all cases, we may conclude that in nearly two-thirds a swelling of the head of the pancreas will produce jaundice; and, curiously, this percentage coincides with Dr. Cumming's and my clinical observations and pathologic investigations on the urine of pancreatic cases.



Fig. 1. Diagram to show the Common Bile Duct passing through the Head of the Pancreas, a portion of which is reflected. (Viewed from behind.)



Fig. 2. Photograph from specimen in St. Thomas' Museum to show gall-stone impacted in the Pancreatic portion of the Common Duct and exercising pressure on the Pancreas.

Not only so, but when the head of the pancreas embraces the common bile duct, should a gall stone pass down, it will almost certainly exercise pressure on the gland, and thus directly interfere with its function and with the discharge of its secretion. (Fig. 2).

The fourth portion is where the duct enters the wall of the second part of the duodenum and ends in the ampulla of Vater, into which small cavity the duct of Wirsung also debouches. This part of the common duct comprises all that portion of the canal contained in the thickness of the wall of the duodenum. It passes obliquely through the muscular coat of the intestine, and then dilates into a little reservoir underneath the mucous membrane, into which the main pancreatic duct also opens. This is known as the ampulla of Vater. (Fig. 3). This ampulla, a little oval cavity, may be well seen in a section of the wall of the duodenum in the axis of the common duct. The opening of the common duct is above that of the pancreatic duct, and the two are separated by a little transverse fold of mucous membrane. The ampulla measures from six to seven millimetres in length, and from four to five in breadth, and with the termination of the two ducts, is surrounded by a thin layer of unstriped muscular tissue, forming a sphincter (Oddi).

The ampulla opens into the duodenum by a little round or elliptical orifice, which is the narrowest part of the bile channel. It is important to note that the length of the diverticulum of Vater

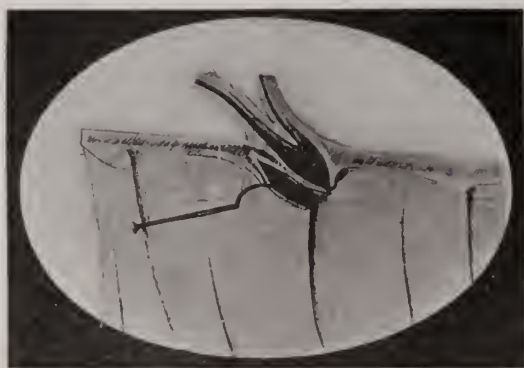


Fig. 3. Ampulla of Vater.

may vary from zero to 11 millimetres, the average being 3.9 millimetres, according to Opie, who measured 100 specimens. Viewed from the interior of the duodenum, the ampulla forms a rounded eminence of the mucous membrane, known as the *carunculā major* of Santorini, the opening being seen at the apex of the caruncle. It is distant 8 to 12 centimetres from the pylorus. Above it there is constantly found a small fold of mucous membrane, which must be raised in order that the caruncle and its orifice may be clearly seen. Running downwards from the caruncle is a small vertical fold of mucous membrane, known as the *frenum carunculae*. Above the *caruncula major* is found a smaller eminence, the *caruncula minor*, making the termination of the accessory pancreatic duct, or duct of Santorini, which opens into the duodenum about three-quarters of an inch above the biliary papilla.

The mode of formation of the ampulla of Vater and the termination of the common and pancreatic ducts are liable to great variations. Letulle and Nattan Lorrier distinguish four types, to which may be added a fifth, recently shown by a dissection now in the Hunterian Museum.

The first type is the classical one, which is described above. In the second type the pancreatic duct joins the common duct some little distance from the duodenum, the ampulla of Vater is absent and the duct opens into the duodenum by a small flat, oval orifice. In the third type the two ducts open into a small fossa in the wall of the duodenum, while the caruncle and the ampulla of Vater are absent.

In the fourth type the caruncle is well developed, but the ampulla

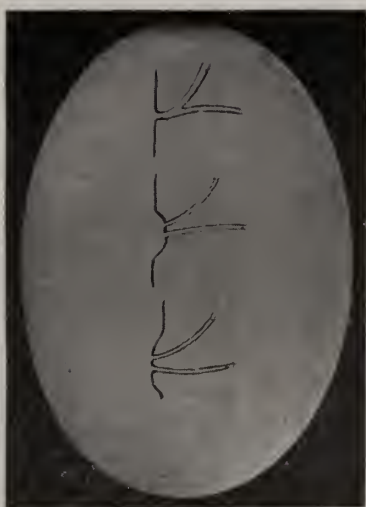


Fig. 4. Diagram to show the 2nd, 3rd and 4th variations in the termination of the bile and pancreatic ducts and the duodenum.



Fig. 5. Photograph of specimen in the Hunterian Museum, R. C. S., showing the Common Bile Duct joining the Duct of Santorini.

is absent, the two ducts opening side by side at the apex of the caruncle. (Fig. 4).

In the fifth type, the common bile duct opens along with the duct of Santorini. (Fig. 5) and Wirsung's duct enters the duodenum separately.

It will be readily understood that, under ordinary circumstances, when a gall stone passes along the common bile duct and reaches the ampulla of Vater, it will not only occlude the bile secretion of which will be retained. Should infection occur, pancreatitis become inevitable, and on the condition of the individual as well as on the nature of the infection will depend what occurs, whether a mild catarrh of the pancreatic ducts, an interstitial pancreatitis, an extremely serious suppurative catarrh or a parenchymatous inflammation in the shape of acute pancreatitis.

Opie, finding in one case a very small gall stone and a large ampulla of Vater, constructed a pretty theory, which is probably true in some rare cases, as in the one reported from Dr. Halsted's clinic in the Johns Hopkins Hospital, and in another case that occurred in Buffalo, which was mentioned to me by my friend, Dr. Roswell Parke, but which, I believe, has not yet been reported. Opie says that under these circumstances the bile and pancreatic ducts are converted into one direct tube, as shown in the diagram, and

that the bile being forced into the pancreatic duct sets up acute pancreatitis. (Fig. 6).

He appears to think that pure non-infected bile is capable of doing this, and he has apparently demonstrated the possibility by experiments on animals. For my own part I believe that infection is the important factor, and that the bile is simply the conveyor of infection.



Fig. 6. Diagram to illustrate how a small stone may obstruct the papilla, and if the Ampulla of Vater be very large, may convert the common bile duct and the duct of Wirsung into one canal, thus predisposing to acute pancreatitis.



Fig. 7. Diagram to show a method of termination of the ducts which would not predispose to pancreatitis.

That this anatomic arrangement described by Opie is not necessary in order that acute pancreatitis may develop is shown by cases reported where no gall stones were present, and by an instructive case under the care of Dr. Fison, of Salisbury, where at the autopsy of a fatal acute pancreatitis a gall stone was completely filling the ampulla of Vater, and including both the bile and pancreatic ducts. It will be seen that, while the normal termination

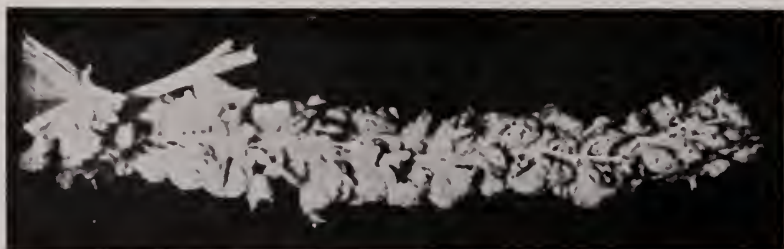


Fig. 8. Photograph of specimen from the Hunterian Museum, R. C. S., showing the separate lobules of the pancreas with each duct opening into the duct of Wirsung.

and the second variety of termination of the ducts will favor the onset of pancreatitis in case of common duct cholelithiasis, the variations 3 and 4 in which the two ducts are separate will possibly save the patient from the serious secondary pancreatic troubles (Fig. 7), and in variation 5 a small portion of the gland only will become infected.



Fig. 9. Skiagram of Pancreas after injecting the ducts with Mercury.

But the pancreatic ducts themselves are also subject to great variations that may influence the course of events. The beautifully dissected specimen from the Hunterian Museum (Fig. 8), a photograph of which I throw on the screen, and the X-ray photograph of Wirsung's duct injected with mercury (Fig. 9),



Fig. 10. Diagram to show the variations in the ducts of Wirsung and Santorini. (After Opie.)

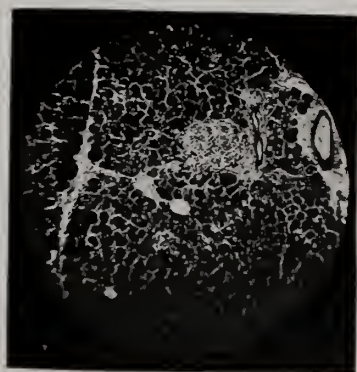


Fig. 11. Normal Pancreas. (Shown for purpose of Comparison.)

also shown, demonstrate the normal anatomy of the pancreatic ducts, and show how the lobules have each a separate duct that

opens into the main channel or duct of *Wirsung*, which itself opens into the ampulla of *Vater*, or directly into the duodenum, as described; but it will also be noticed that a smaller channel, the duct of *Santorini*, usually discharges some of the secretion of the pancreas directly into the duodenum, and that in a certain proportion of cases the two ducts communicate.

The diagrams I now point out will explain this. They show the result of observations by *Opie* on 100 cadavers (Fig. 10), in which the ducts were injected and photographed, with the following results.

In 90 specimens the two ducts are united; in 10 two wholly independent ducts enter the intestine.

(1) Of the ducts in anastomosis.

1. Duct of *Wirsung* larger in 84,

(a) Duct of *Santorini* patent in 63.

(b) Duct of *Santorini* not patent in 21.

2. Duct of *Santorini* larger in 6.

(a) Duct of *Wirsung* patent in 6.

(b) Duct of *Wirsung* not patent, 0.

(2) Ducts not in anastomosis in 10,

(a) Duct of *Wirsung* larger in 5.

(b) Duct of *Santorini* larger in 5.

In 89 per cent. the duct of *Wirsung* was larger than the duct of *Santorini*. In 21 per cent. the duct of *Santorini* was apparently obliterated near its termination. In six cases the duct of *Santorini* was larger than the duct of *Wirsung*. In all cases where the duct of *Santorini* is patent it diminishes in size towards the duodenum. Thus the duct of *Santorini* can not be relied on in many cases to supplement the duct of *Wirsung*, if it be obstructed; moreover, the duct of *Santorini*, even if patent and communicating with the duodenum, may itself be compressed by a moderate sized gall stone, passing down the pancreatic portion of the common duct. Now, it might be urged that if the two ducts communicate, why should not the duct of *Santorini* act as a safety valve to the duct of *Wirsung* when it is compressed and thus free the pancreas from the retained secretion which is in danger of becoming septic.

The reasons why the gall stones in the common bile duct do not always produce pancreatic inflammation are—

(a) Some gall stones are so large that they never reach the

pancreatic portion of the duct, but remain in the supraduodenal portions of the common duct, producing jaundice but no pancreatitis.

The following is an example: Mr. S—, aged 65, had for two years been subject to occasional attacks of epigastric pain. In January, 1903, a severe attack was followed by jaundice, since which time he had rapidly lost weight, and the jaundice had never disappeared. Pain after food had been a marked feature. He had neither vomited blood nor had melena. There was no dilatation of the stomach, and no evidence of tumor. The recti were rigid. He was seen by a well-known physician, who diagnosed cancer of the pancreas. An examination of the urine, however, showed an entire absence of pancreatic crystals, proving the absence of cancer and of inflammation of the pancreas. An operation was performed on November 24, 1903, when a gall stone the size of a filbert was discovered in the supraduodenal portion of the common duct and removed through an incision, which was afterwards sutured. The pancreas appeared normal. The gall bladder was drained. Recovery was uninterrupted, and the patient is now well.

- (b) In some cases the bile ducts and pancreatic ducts open by separate orifices, as shown in the illustrations, and any gall stone passing down the common duct will then not necessarily compress or occlude the pancreatic duct.
- (c) In exceptional cases the duct of Santorini is the principal

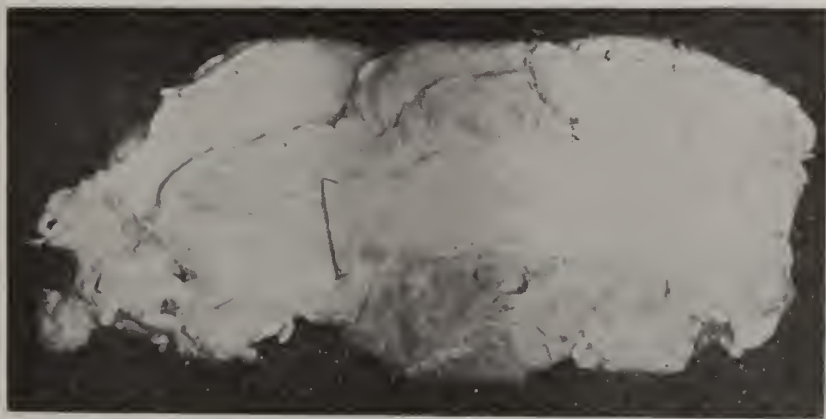


Fig. 12. Photograph of specimen showing the result of Pancreolithic catarrh the Duct of Wirsung being converted into a rigid channel, owing to the deposit of lime salts. The orifice of Wirsung's duct is occluded by the same deposit, the duct is dilated and the gland atrophied.

outlet for the pancreatic fluid, it being of such a size as to afford a safe outlet to the secretion even when the duct of Wirsung is obstructed.

In order to make the relationship between gall stones and in-

flammation of the pancreas quite clear, I shall give the classification of pancreatitis that I recently proposed in the Hunterian lectures, which, I believe, includes all the varieties. Pancreatic inflammation may be catarrhal, in which the inflammation trouble is in the ducts, or parenchymatous, in which the substance of the pancreas is involved. The former resemble the different forms of cholangitis, with which, indeed, they are frequently associated; the latter bear more resemblance to inflammatory affections of the appendix, "suppurative and gangrenous appendicitis." The following shows the classification at a glance:—

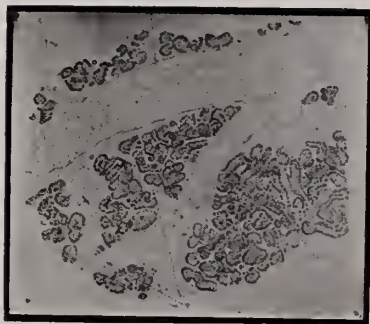


Fig. 13. Hemorrhage into pancreas showing how the blood infiltrates and breaks up the gland tissue, setting free the ferments.

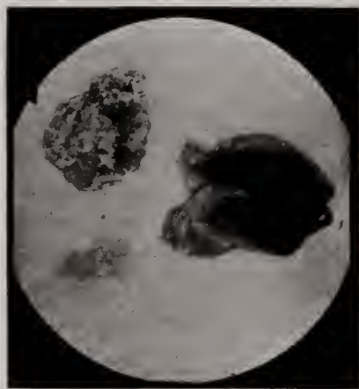


Fig. 14. Specimen from the Leeds Museum showing hemorrhage in the Pancreas producing the ultra acute form of Hemorrhagic Pancreatitis.

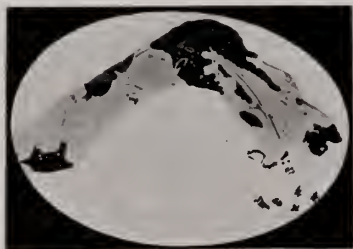


Fig. 15. Acute Hemorrhagic Pancreatitis.



Fig. 17. Acute Hemorrhagic Pancreatitis.

Catarrhal Inflammations:—

- (a) Simple catarrh, acute and chronic.
- (b) Suppurative catarrh.
- (c) Pancreo-lithic catarrh. (Fig. 12).

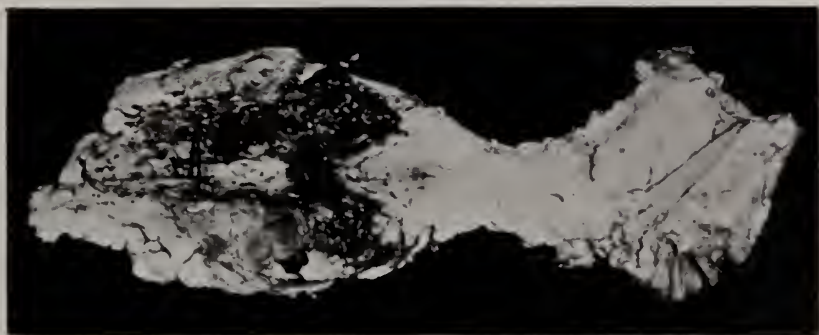


Fig. 16. Acute Hemorrhagic Pancreatitis in which inflammation precedes the Hemorrhage.

Parenchymatous Inflammations:—

Acute:

(a) Hemorrhagic pancreatitis. (Figs. 13-17).

1. Ultra-acute, in which the hemorrhage precedes the inflammation, the bleeding being profuse and both within and outside the gland.
2. Acute, in which inflammation precedes the hemorrhage, which is less profuse and is distributed in patches through the gland.

(b) Gangrenous pancreatitis. (Figs. 18-19).

(c) Suppurative pancreatitis (diffuse suppuration).

Subacute:

Abscess of the pancreas (Fig. 20), (not diffuse suppuration).

Chronic:

(a) Interstitial pancreatitis. (Figs. 21-22).

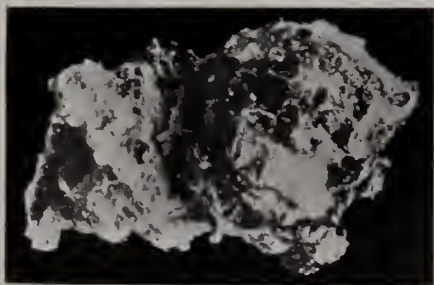


Fig. 18. Slough of Pancreas removed at operation. Recovery.



Fig. 19. Microscopic Section of Necrosed Pancreas.

1. Interlobular.
2. Interacinar. (Fig. 23).

(b) Cirrhosis of the pancreas. (Fig. 24).

Although in my address today I am only dealing with one cause of pancreatic trouble, yet it is the chief one, and in a very

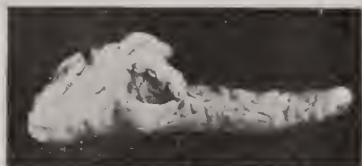


Fig. 20. Abscess of the Pancreas.



Fig. 21. Catarrh of the Pancreatic Ducts and Incipient Interstitial Pancreatitis. A thrombosed vessel is seen near the centre of the field.

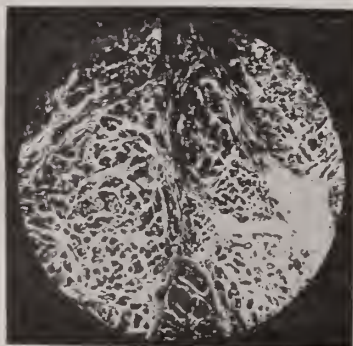


Fig. 22. Interstitial Pancreatitis.

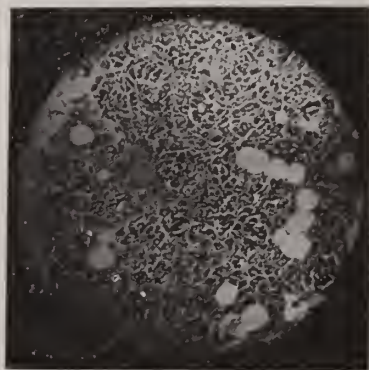


Fig. 23. Interacinar Pancreatitis end in Diabetes.

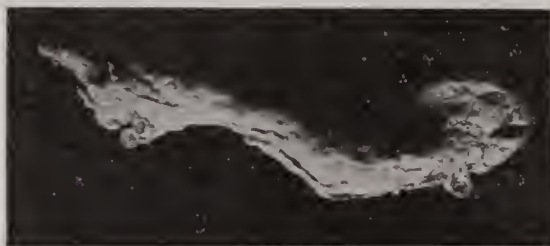


Fig. 24. Cirrhosis of Pancreas.

large percentage of cases the only cause of pancreatitis in its various forms; but in order to make the position clear, I will relate the other etiologic conditions.

(To be continued.)

BRAIN CYSTS, WITH REPORT OF TWO CASES.*

By WILLIAM HOUSE, M. D.,
PORTLAND, OREGON.

Resident Physician. Crystal Springs Sanatorium.

Brain cysts are always considered in the text-books as a subdivision under the head of brain tumors, although in many of their phases they are more closely allied to softening. While fully recognizing their relationship to both these processes I have preferred to treat them, as their importance deserves, under a separate heading having a distinct etiology, pathology, etc.

DEFINITION. For the purpose of the following article a cerebral cyst may be defined as a circumscribed collection of fluid or semi-fluid, which may or may not have within its midst a foreign body, within the brain or its membranes, and not the result of a recent hemorrhage or a purulent inflammation. In limiting the definition in this manner the late results of hemorrhage may be included, while hydrocephalus, together with the diffuse collection of general meningitis, tubercular or otherwise, and the oft-times sacculated collections of meningoencephalitis (i. e., paresis) may be excluded. The varieties of cysts met with in the brain are:

1. Cysts of degeneration from,
 - a. Blood clots.
 - b. Embolism.
 - c. Thrombosis.
 - d. Syphilitic endarteritis.
 - e. Tumors.
2. Cysts of extravasation, as seen occasionally in the choroid plexus, where they resemble the small cystic collections which are occasionally seen in an ovary.
3. Cysts due to irritation from the presence of foreign bodies.
4. Parasitic cysts,
 - a. Echinococcus.
 - b. Cysticereus.
 - c. Hydatids.
5. Dermoids.

ETIOLOGY.—*Age.* From a review of the literature it appears that no age is exempt. Cysts are said to predominate in childhood and early youth, though why this is so is a mystery. Starr's statistics of three hundred cases of tumor in adults and a like number

*Read before King County Medical Society, Seattle, Wash., January 16, 1905.

in children show that there were two cysts in the former and thirty in the latter. The cases which I will report later were both in adults, and accepting the logical deductions based upon a study of their causes, cysts in adults should be far more frequent than indicated in Starr's statistics, a view that would seem to be supported by reference to the literature of operative successes upon brain growths, especially Eskridge's, whose reports of seven cases which I have studied, indicate that in five the lesion was either a true cyst, a cystic degenerative process in the cortex, or a cystic cicatrix, whatever that may mean. Furthermore, an analysis of the direct causes would indicate that the age statistics of brain cysts must be largely the age statistics of apoplexy, of syphilis, and of cerebral trauma, all most commonly occurring in adult life. It is probable that a large percentage of the cysts of childhood are due to tubercular processes and are simply local evidences of a generalized constitutional disease.

Sex. Apparently sex has little relation to the development and frequency of brain cysts, excepting that, owing to the greater frequency of apoplexy, syphilis and injury in the male sex, one would expect to find a greater proportion amongst males, especially in adult life. Statistics are unavailable to shed light on this subject.

Heredity. It is difficult to logically conclude from study of the direct causes of brain cysts any considerable relationship between heredity and their production, excepting as inherited syphilis might presumably result in cystic tumors of the encephalon. It also seems reasonably certain that there is a distinct hereditary transmission of the tendency to apoplexy and in cysts traceable to hemorrhage; to this extent heredity may be a remote factor. But with these two exceptions it may be practically excluded from consideration.

Direct Causes. A glance at the enumeration of the varieties of brain cysts will suffice to provide a table of their direct causes. Under the head of apoplexy, hemorrhage, embolism and thrombosis are to be considered. Hemorrhage, both submeningeal and within the brain proper, is responsible for a small number of cases. Submeningeal cysts are simple collections of blood-stained serum or more or less broken down clot, resulting from imperfect absorption of the blood exuding from a ruptured vessel. Such collections may persist for months after the hemorrhage occurred, and occasionally will be found partially encapsulated between the brain and its membranes, by imperfect adhesions at the borders of the

mass of exudate. They are scarcely to be called cysts, yet they present many of the clinical phenomena of cysts and may conceivably be subjected to similar operative treatment. They are comparatively frequent in late paresis in which small hemorrhages, together with deficient absorptive power of the meningeal lymphatics, are common. Their common location is along the course of the middle meningeal artery and within the Sylvian fissure, where gravity, to a certain extent, influences the final deposition of the clot. Aside from these collections, hemorrhage within the brain may result in cysts through the absorption of portions of the clot, the fibrous part remaining exerting pressure upon the surrounding walls, causing exudation eventuating in a true cyst.

Embolism and thrombosis result in cysts by a process to be described later. Syphilitic endarteritis, as a direct exciting cause, is responsible for cyst development through the production either of thrombosis or hemorrhage, or both combined.

Tumors undergo cystic degeneration through the destruction of their blood supply by growth and pressure upon their own blood vessels and also by irritation upon their surrounding walls with resulting exudation.

Foreign Bodies. Several years ago I made a post-mortem examination in a case in which a bullet was encapsulated within the right temporo-sphenoidal lobe. The brain was adherent to the dura on the under side, so that in lifting it out, a portion remained behind. The patient, a terminal dement, had never presented any focal disturbance. He had died suddenly following a light convulsion. References to his history disclosed the vague information that he had been shot in the head twenty-seven years before. In a second case from which, through the courtesy of my colleague, Dr. R. L. Gillespie, I am in possession of the specimen, the patient had attempted suicide by shooting himself through the head as the most effective means of curing himself of epilepsy. He was trephined at the point of entrance of the bullet through the right temple and about a tablespoonful of brain substance removed. He recovered, and for twenty months exhibited no abnormal phenomena other than a continuation of his epilepsy recurring at intervals of two or three months. He finally died after a light seizure, following which he was aphasic and had difficulty with deglutition. The bullet was found within the left occipital lobe, lying upon the tentorium and almost completely surrounded by the brain substance in which it had hollowed for itself a resting place with a smooth shiny wall, lubricated with

cerebro-spinal fluid, and to all intents and purposes a true cyst except that the wall had an opening.

Bodies introduced from without, if there is no accompanying infection, may become completely encapsulated and exciting extravasation of serum, produce true cysts, a result probably more common than our knowledge of the subject would indicate.

Parasitic and dermoid cysts, resulting from causes indicated by their names, need no discussion here.

PATHOLOGY. The pathology of cysts of degeneration is largely the pathology of cutting off of the blood supply. As related to sub-meningeal hemorrhage, it has already been briefly described under etiology. Embolism and thrombosis of the central arteries of the brain, unlike embolism and thrombosis elsewhere, are uniformly attended with serious results for the reason that there is no anastomosis between the deep arteries, and a blood supply once cut off, must always remain cut off. If the extent of the trouble is sufficient, softening and destruction of a large area results, and death at an early date is the logical outcome. But if a small vessel only be occluded, the more or less pyramidal portion deprived of blood supply may be either absorbed with a resulting scar, or, being without nutrition, may undergo degeneration with destruction and partial absorption of the nerve elements, leaving a residue of serous fluid, within which may be found a quantity of disorganized debris, the amount and character of which will vary with the age of the process. If the lines of demarkation be sufficiently distinct, a cyst is formed, the walls of which are ill-defined and ragged, often covered or continuous with a stalagmite and stalactite sort of formation, the remains of the more resistant and less readily disorganized tissue at the borders of the area involved. Such, also, in the main, is the pathology of cysts from hemorrhage within the substance of the brain. In my second case the cyst was apparently filled with clear serum, but upon further investigation was found to contain a cauliflower-like mass of reddish substance, evidently partially disorganized brain tissue, attached by a more or less healthy base to the surrounding brain. The remainder of the wall of this cyst was covered with a mucoid fluid and slimy membrane, only partly adherent. In addition there were several small recent hemorrhages in the wall.

The location of cysts of degeneration is essentially, in order of frequency, the location of embolic and thrombotic processes not necessarily associated with cyst formation—that is, along the middle cerebral arteries (more especially in relation to embolism

the left one) and in these locations involving the motor areas. And in a lesser number of cases, along the branches of the posterior and anterior cerebral arteries or in any of the branches of the deep arteries. In my first case the lesion, due to thrombosis, was within that branch of the left middle cerebral supplying Broca's convolution—probably the most common site if one may judge from the literature, although this may be more apparent than real, since such lesions, owing to the well-known function of the convolution under consideration, most readily lend aid to diagnosis and localization. In my second case the cyst was within the right frontal lobe and appeared to be due to involvement of branches of the anterior cerebral artery.

Cysts from retention of foreign bodies may be found in almost any part of the brain, though, if the intruding mass be of any size, it must be clear of the basal ganglia, otherwise one would anticipate an early fatal issue. Probably serious injury to the basal ganglia is invariably inconsistent with prolonged life, while injury to the cortex, especially about the anterior and posterior extremities and along the inferior external borders, appears to be of a less destructive nature, and accordingly foreign body cysts in these regions, by inference, would be more common. Gravity, in the case of metals especially, tends also to determine their deposition at the base and if they are sufficiently near the margins of the brain to escape the basal ganglia, as is possible in the frontal, occipital, and temporo-sphenoidal regions, the result may be an encapsulated or encysted mass not necessarily producing definite symptoms.

According to Gowers, there are occasionally seen small cysts containing clear serum, having no definite relation to any of the processes previously recorded. I have never seen any of these cysts and can offer no explanation of their mode of production, other than the suggestion that they are due to birth injury.

The pathology of hydatids, cysticerci and dermoids is the pathology of these processes elsewhere.

SYMPTOMS. The symptoms of brain cysts are for the most part the symptoms of solid tumors of the brain. They may be divided into general, or those by which the presence of morbid cerebral growth may be diagnosed, and focal, or those which are of use in locating it. I shall deal only roughly with this section, depending upon the case histories to aid in bringing the more prominent symptoms to your notice, and shall further limit my text to the cysts of degeneration from hemorrhage, embolism, thrombosis,

and syphilitic endarteritis, and cysts from foreign bodies, omitting all reference to cysts of tumor degeneration, which are but steps in the clinical history of the tumor itself.

The more common symptoms I should say are, giddiness and occasional staggering. Vomiting, which is almost certain to be projectile in character. It may be intractable or it may occur but once or twice, and comes on usually after undue excitement or effort. Optic neuritis is less likely to occur in cysts than in solid tumors, at least in a severe form, though there is nearly always some choking of the discs with dimness of vision. Headache, from distension, will probably be found in most cases, and, as is the case in tumor, is often more or less localized though I have never found this symptom of any real benefit in locating a growth. Disturbances of the pupillary reflexes, especially dilated, inactive, and unequal pupils, are common, and there may be in addition involvement of the orbital muscles.

The heart's action will be slowed, especially in large cysts, the pulse often dropping to forty-eight or less per minute. Late in the disease the pulse becomes more rapid and this change may be accompanied by Cheyne-Stokes respiration.

Convulsions, either general or local, are amongst the most common symptoms of troubles of this kind. Usually they occur suddenly and are epileptiform in character, but unlike epilepsy, are nearly always accompanied and followed by some partial and temporary paralytic phenomena such as disturbances of gait and reflexes. They occur frequently or at comparatively long intervals. I have noticed that the early convulsions are more acute and dynamic, and of shorter duration than the late ones, which, in addition to increased duration, and followed successively by greater and greater constitutional disturbances. Finally, the convulsions may be replaced by simple loss of consciousness persisting for a few minutes or several hours. Frequent convulsions are of bad prognostic import.

Mental symptoms are so variable as to include practically all the psychic disturbances of almost all the types of insanity. In the main, however, they consist of slow cerebration with loss of memory and thus create the impression of stupidity. At times this is varied with active hallucinations and delusions and the perpetration of irrational acts. In young adults there may be pronounced sexual disturbance, as in my second case.

Speech affections may be found in most cases even though the lesion be far distant from the speech center and consist in ex-

treme slowness and hesitancy, together with aphasia or paraphasia, if the lesion is on the left side and near Broca's convolution. There may be sensory disturbance, but this usually consists simply of a blunting of sensation, and I should consider it of no very great importance. At times it is varied with tingling and numbness of those portions of the extremities having their cortical centers involved.

The localizing symptoms will vary with the situation of the lesion. In the main, cysts well to either side of the median line produce the phenomena of simple hemiplegia, that is, the opposite side of both face and body from that in which the cyst is located, exhibit the more common symptoms. Early they may be muscular weakness with more or less rigidity, marked exaggeration of the patellar reflexes, more so in the involved side, and later, either spasmodic contractures or paralysis of the muscles implicated. During the convulsions in both my cases, there was conjugate deviation of the orbits toward the site of the lesion.

The pupil on the affected side is usually dilated. Cysts in or near the special centers will, of course, produce symptoms related to the senses, such as hemianopsia, blindness, deafness, loss of smell and taste, and aphasia or paraphasia. These centers and their functions are so well known that merely to mention them is sufficient.

It is a serious mistake to expect to find symptoms confined to one side except very early, for, as the trouble increases, pressure results, and both sides will invariably show signs of disturbed cortical activity, the side corresponding to the cyst naturally exhibiting the more pronounced disturbance. It is also erroneous to expect to find all of the symptoms mentioned in a single examination of a case, though, as a rule, given time, their occurrence might be regarded as more than probable.

Late in the process the pathognomic symptoms of bulbar paralysis may be anticipated. These symptoms are apparently due to pressure within the natural brain cavities extending downward to the floor of the fourth ventricle and implicating the deep origins of the cranial nerves. Death occurs most commonly from exhaustion with coma, as a result of slow starvation, or from convulsions with late respiratory paralysis.

DIAGNOSIS. I do not think there is any certain means of differentiating brain cyst from tumor. I should say, however, that a history suggestive of past apoplexy, embolism or thrombosis, followed by the localizing symptoms of intracranial growth, would

be presumptive evidence of cystic degeneration. Or, having located the trouble and excluded syphilis, an exploratory operation would often definitely determine the nature of the process, besides, furnishing the only probable means of recovery. Also the probability of bilateral involvement is greater in cyst than in tumor.

The possibility of confusion with a multitude of other lesions of the brain and cord must be borne in mind, yet ordinarily one would except no great difficulty if permitted to watch the case from day to day, eliminating one condition after another until the possibilities are narrowed down to solid tumor or cyst, and then only a necropsy will surely decide. The great element in the diagnosis of intracranial troubles, aside from a careful history, is time, and with plenty of that, few cases should go to the end without a fairly accurate grasp of the situation on the part of the observer. The quicker a conclusion can be reached, however, the better is the always poor chance of the patient for recovery.

TREATMENT. If the diagnosis can be made and the cyst located, this must be surgical. The skull should be trephined over the proper region, the dura opened and the cyst drained. I would advocate sufficient curettage to remove the irregular jagged portions of the wall, following by packing with sterilized gauze, with provision for securing the necessary drainage until the cavity can close by sinking in of the walls and cicatrization. Any tumor or cauliflower growth should be removed if possible. I am unfortunately unable to chronicle any personal successes through surgical intervention, as in my first case in which the diagnosis was clear, the conditions for operation were unfavorable, while in the second case the cyst was not located. It seems to me, however, that the successes reported by others in the surgical treatment of brain tumor have been more numerous in cysts than in solid growths. Logie indicates that surgery alone offers hope, yet we must never forget that the conditions favoring the development of the original condition will usually remain active and even in those cases in which operation is apparently successful, recurrence may be confidently anticipated.

When, as is common, the cyst cannot be located, or when from its position or for other reason its removal is deemed impracticable, palliative medical treatment must be used. Due care of the eliminatory organs will lessen the tendency to convulsions. Sedatives may be required and of these the bromides easily hold first place, especially in combination with antipyrin. Arsenic as a tissue builder is distinctly serviceable. Strychnin should rarely

be used and I herewith wish to register a protest against the common practice of giving the iodides. If syphilis can be excluded I think they are rarely of benefit as they appear in practice to have a distinctly depleting effect, lessening the resistance of patients, and in some cases undoubtedly tending to hasten and spread the process of softening. Chloral, trional, and sulfonal may all find a limited place in the treatment of insomnia, while hyoscin, morphin and cannabis indica may be used as a last resort to ease pain and convulsions.

REPORT OF CASES.

My first case is notable for the rapidity of its development and course, and for the clearness of the symptoms which made an accurate localization possible, almost on the first examination.

Case I. Male, aged 63, farmer, born in U. S.

Family history. Father died at 70. Cause unknown. Mother died at 94 from senility. Two brothers and three sisters living and well.

Personal history. So far as known was never seriously ill. Never had rheumatism or typhoid. Always a man of strength and more than average endurance. Difficult to obtain life history further than this.

Last illness. Started from Western to Eastern Oregon to visit a relative, and on reaching destination was unable to tell where he wished to go or whom he desired to see. This information was obtained from letters on his person. He was sent back to Portland three days later, and on the eighth day entered Crystal Springs. On admission was able to walk, never having been confined to bed. He seemed sleepy, staggered a little, complained of headache and was confused in speech. He could understand all that was said to him, but could not give adequate expression to his own thoughts or desires. For example, on one occasion he wanted a drink of water and asked for a "horse and buggy." Was able to write his own name once or twice, but later uniformly ended by adding two letters, making a different but otherwise correct name. He weakened from day to day, but retained control of all his muscles.

Sixteenth day. Seemed stupid and dull, but on being roused shook his head in reply to questions, which he appeared to thoroughly comprehended. Was thin and weak, but still able to walk. The right patellar reflex was exaggerated, pupils equal and responding to light. His tongue was put out slowly and projected to the left. Heart and lungs appeared normal.

Twentieth day. No change in symptoms except that pulse had become full and slow, about 56 per minute. Rarely attempted to speak, but seemed to understand when questioned.

Thirty-second day. Was reported by the nurse in the early morning, and when visited found in semi-comatose condition. Pulse

full and strong, 56 per minute. Respirations slow. No rise in temperature. For past ten days had lost control of bladder and passed small quantities of foul-smelling urine frequently. Next day respirations were increased to 32; pulse, 72; temperature, 101°. Rales in both lungs. The febrile symptoms subsided rapidly and was doubtless due to accidental pulmonary disturbance.

Thirty-fifth day. Had gained in strength and was able to be about the room and hall, and, after getting out of bed when the nurse left him for a minute, did a few dance steps and teased one of the other patients. This is cited to call attention to the irregular progression of the symptoms.

Two days later had trouble in swallowing, acting as though his throat was sore. Promptly opened his mouth on being asked, showing a healthy pharynx. He declined, but not steadily, some days feeling quite well and for at least a week regaining control of



Fig. 1.—Cyst of third left frontal convolution. Area of softened tissue below cavity.

sphincters. Occasionally emitted a hearty oath when given a hypodermic injection, and if caught suddenly responded to questions with "yes" or "no," but could not repeat replies. Otherwise than this could not articulate.

Fiftieth day. Patient was much worse since midnight. Was semi-comatose and regurgitated everything given him to eat or drink. The lower jaw was drawn to the left and tongue pushed out slowly just beyond the teeth. Right side of face not involved, but left side in a state of contraction, which was not marked.

Fifty-sixth day. For the past week patient had been semi-comatose, with slow, full pulse, which toward the end gradually became weaker. Temperature had been normal. At no time had there been any special pupillary or ocular involvement except when making violent effort to talk, when orbits were drawn upward and to the left. There were no evidences of optic neuritis at any time.

He died on the fifty-seventh day from exhaustion.

Post-mortem. Cyst of Broca's convolution, well defined and containing probably an ounce of clear serum. In addition to this there was involvement of the antero-inferior extremity of the ascending parietal convolution, which I think from its appearance was a later process than the involvement of the artery of Broca's convolution. The process was undoubtedly thrombotic in origin, there having been no evidence of hemorrhage or of heart disease to account for embolism.

My second case is remarkable for the absence of distinct localizing symptoms, so that, aside from the belief that the lesion was on the right side, it could not be located with any accuracy during life.

Case II. Male, aged 34, single, lumberman.

Family history unobtainable.

Personal history as far as was known negative except that, twelve years before, patient had a disease diagnosed as syphilis by some irregular practitioner, who treated him for three months and pronounced him cured. Inquiry as to the symptoms at that time made the diagnosis questionable.

Fatal illness. Three months before entering Crystal Springs had sudden loss of consciousness without preceding symptoms. Also attack of projectile vomiting. During the ensuing three months had three more convulsions.

On admission patient was found to be large and brawny and apparently in good physical condition except for emphysematous chest. Viscera otherwise normal. Pulse full and strong.

Nervous symptoms. Cerebration very slow. Patient answered questions and seemed to comprehend, but often had to have inquiries repeated and took a good deal of time to reply. Was not aphasic. Sensation lessened all over body, but not otherwise altered.

Left knee jerk greatly exaggerated. Tendency to ankle clonus on left side. Right knee jerk increased, but not so much as left. Pupils large and sluggish, right one more so than left. Vision diminished, but patient could read coarse print easily. No evidences of optic neuritis or atrophy. Taste sense blunted and patient did not seem to be able to discriminate between various foods and medicines.

Right side of face smooth and expressionless, but not paralyzed. Left side of mouth slightly drawn up. Tongue projected to right and thick and indented. Left hand grip diminished.

No delusions or other abnormal mental phenomena except manifestly slow cerebration.

First convulsion one week after admission. Not witnessed. Second convulsion a week later. Patient fell violently to the floor while eating, and was found by me a few seconds later lying on his face and right side of body, with limbs partially flexed on abdomen and arms held rigidly against his body. When moved instantly resumed cramped position. Respirations were slow and ster-

torous. Seizure lasted forty minutes. Throughout it the pulse was full and about 64 to 66 per minute.

Third convulsion a few days later; not witnessed.

Fourth seizure. Twenty-five days after admission was seized at 7 p. m. with convulsion similar to the one described. At 9 had partially recovered consciousness, but again had a convulsion, lighter than the preceding one and continued in state of clonic convulsion until 3 p. m. During every return of even partial consciousness manifested signs of most distressing priapism, which had for the past two weeks been a frequent source of disgust to those attending him. At 3 a. m. he became cyanosed to an extraordinary degree and resembled a case of strangulation. Typical Cheyne-Stokes respiration, which had been present from 2 a. m., was replaced by extremely slow and shallow breathing, which varied from three to one per minute. The heart was strong and slow, about 66, and continued so until 3:30 a. m., apparently uninfluenced by the almost complete cessation of respiration. He died five minutes later.

From the date of admission had been given iodide of potash, which seemed to have no influence on the disease.

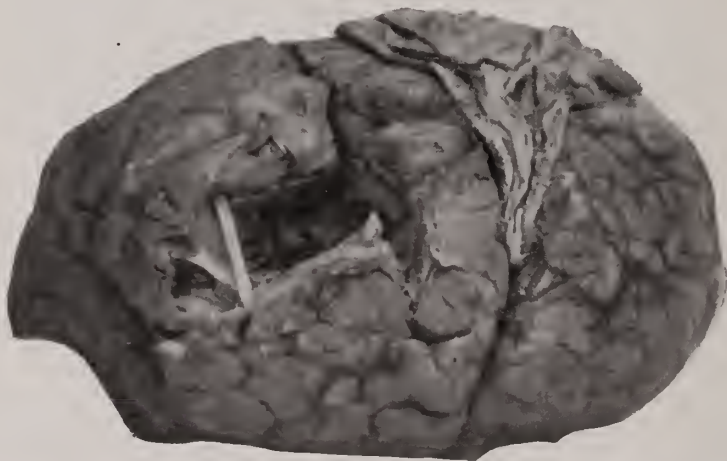


Fig. 2.—Cyst of right frontal lobe involving the superior convolutions. Cyst is held open by piece of wood placed in transverse knife cut. Also knife cut from before backward to expose cavity.

Post mortem. Great tension of cerebral membranes. In right frontal region a cyst presented which ruptured while removing the dura, exuding forcibly about three ounces of clear amber fluid. Cyst was lined with gelatinous membrane and contained a quantity of broken-down detritus, together with several clots in its walls about the size of split peas, and probably due to hemorrhage, which was doubtless the direct cause of the fatal convulsions. The cyst involved the two superior frontal convolutions and communicated with the right lateral ventricle.

NORTHWEST MEDICINE

CLARENCE A. SMITH, A. B., M. D.
Editor in Chief.

JAMES B. EAGLESON, M. D.
Managing Editor.

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MARCH, 1905.

NO. 3

THE ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

Let none of our readers forget that this meeting will be held at Portland, July 11—14. The Association has not visited the Pacific Coast for over ten years and probably as long a period will elapse before it again convenes on this side of the continent. Therefore, it is fitting that the physicians of the Northwest take this occasion to join the parent organization and attend its sessions in force. Every indication points to a great and successful meeting. Local arrangements for the accomodation of visitors and section meetings are being rapidly perfected and it is assured that every stranger will be well cared for. We wish to extend our congratulations to our Portland friends on the work already accomplished for entertaining this National gathering and to wish them every success and satisfaction in carrying out their plans.

OUR PRIZE OFFER.

One purpose for which NORTHWEST MEDICINE was organized and has been maintained is the encouragement and stimulus of medical scientific and literary productions among the physicians of the Northwest. As an indication of this purpose on our part, the management of this journal hereby offers two prizes, the first of \$50, the second of \$25, for the best papers submitted on original work done by the authors, on any subjects selected by them. This competition is open to any physician on the Pacific Coast, in the United States or British Columbia. The conditions are that papers

must be submitted to the Editor of this journal on or before the first of September. Each shall be signed by a fictitious name, symbol or motto. It shall be accompanied by an envelope, bearing the same signature as the paper and containing the real name and address of the writer. The papers will be referred to a committee of judges, comprised of one each from Seattle, Tacoma and Portland who will be selected at a later date. The names of the successful competitors will be announced at the next annual meeting of the Washington State Medical Association, to be held at Tacoma next fall.

It is to be understood that all papers submitted will remain in the hands of the Editor for future publication, according to his judgment.

MEDICAL LEGISLATION IN WASHINGTON.

Many matters of special interest to the medical profession have, as usual, been presented before the present session of the Washington Legislature. While many bills of this nature are introduced, few succeed in safely avoiding all the obstructions presented to them. Those which have been under consideration are hereby noted, with their disposition at the time of this writing:

To Prohibit the Use of Formaldehyde in Milk. This is the first bill of a medical nature that has passed both branches of the Legislature and been signed by the Governor. It is so clearly to the advantage of the general public that no opposition to it appeared.

An Amendment to the Medical Practice Act. This has passed both legislative bodies and is expected to be signed by the Governor. Its features consist of raising the examining fee from \$10 to \$25, eliminating the reciprocity clause, and requiring that applicants before the Board must hereafter present diplomas from colleges requiring four years of study, instead of three as has hitherto been the custom. The four-year requirement will tend to raise the class of physicians who will secure licenses in the future. At the same time it will necessitate eternal vigilance, in coming years, to prevent legislation for special examining boards in behalf of graduates of various irregular schools whose requirements are for fewer years of study and who, therefore, will not be eligible to appear before the established board. Some will undoubtedly consider the abolition of the reciprocity clause a backward step, but, with the variegated requirements of the different examining boards of the country, reciprocity is impracticable and, in reality, is a dead letter everywhere. When uniformity of state requirements is established or a National enactment is

obtained, reciprocity will become a fact. Until then it will remain a dream.

An Act to Prohibit Advertisements to Cure Sexual Diseases. This most commendable bill has passed both branches of the Legislature, in spite of the united opposition of the newspapers and quack doctors. It prohibits the publishing or printing of any advertisement to cure genito-urinary diseases, to restore lost manhood or to treat this class of disorders. The penalty is imprisonment for one to six months for the editor and owner of any paper or proprietor or any printing establishment who publishes such advertisements. What a clearing of the atmosphere of foulness and filth will follow the enforcement of such a law! The governor will probably sign the bill and results may soon be expected from it.

The Vital Statistics Bill. It was expected that this worthy measure would meet with no opposition, since it seemed to embody no ax-grinding for anybody. Its purpose is to collect statistics through the State Board of Health, of births and deaths, that will be trustworthy and of value. The essence of the bill is the requirement of a certificate of death from the attending physician before a burial permit is granted. It will put a check on the possible commission of crime and provide legal data of value. It passed the Senate, but ran afoul of a Christian Science statesman in the House, who succeeded in arousing sufficient opposition to accomplish the introduction of an amendment that, in case a physician be not present at a death, any adult person who is present may assign the cause of death. Since this would vitiate all existing laws in the state requiring a physician's certificate, the Senate refused to concur and it is expected the House will agree to its elimination.

The Pure Milk Bill. This has passed the Senate and if the House gives a favorable vote it will probably become a law, as it was introduced at the instigation of the Governor. It places the whole milk industry of the state under the supervision of the State Board of Health. Each dairy must secure a permit from this board after passing inspection by the State Veterinarian. Every city milk depot must first obtain a license from the local Board of Health, which will subject the milk to bacterial, chemical and temperature tests. Furthermore, each deliverer of milk must also obtain a permit from the local Board of Health. Authority is given for revoking a license whenever its possessor violates the conditions attached to it. The enforce-

ment of the provisions of this bill would ensure a milk supply that would be unquestionable and it is to be hoped that it may become a law.

The Optometry Bill. The opticians of the state desire an examining board to grant licenses to all opticians who may hereafter enter into business. The committee of the House amended the bill so as to require all existing opticians as well as all who may hereafter begin practice, to appear before the State Examining Board, in order to obtain a license. The interest of the opticians ceased at this point. But why have the oculists not gotten busy and agitated the passage of this bill when it was possible to have accomplished this desirable object.

An Act to Investigate the Subject of Tuberculosis. This directs the State Board of Health to collect data as to the existence and spread of tuberculosis in the state, also concerning public sanatoria in other states, with the purpose in view of the future establishment of such an institution in the State of Washington. It has passed the Senate, but the Appropriation Committee cut out the provision for \$2,000, without which this investigation cannot be made.

The Osteopath Bill. The greatest interest has centered about the contest over this bill. When the osteopaths caused a bill to be introduced into the House granting them a special examining board, Dr. Wilson introduced another in the Senate, requiring them to appear before the regular Examining Board. This passed the Senate and, after a prolonged contest before the House committee, which was visited by physicians from several cities, it was reported favorably. A spirited contest was anticipated before the House but, to the surprise of its supporters, a motion to indefinitely postpone was passed by a large majority. The measure being now dead a move is on foot to coquette with the osteopaths to the extent of gaining their support for the passage of a bill, providing that those osteopaths be exempt from examination who have taken three courses of study, of five months each. At the same time it is proposed to include the wide-sweeping "Arizona" definition of the practice of medicine, which will brand all kinds of freak healers and practitioners as illegal and subject to prosecution.

MEDICAL NOTES.

The January session of the Washington State Medical Examining Board. At the January examination, held at Spokane, 82 candidates appeared, of whom 65 were successful. Their names and addresses are as follows:

John W. Amesse, Seattle.	G. W. Herbein, Ellensburg.
T. M. Andie, Mabton.	E. O. Honda, Roslyn.
D. A. Angus, Pardeeville, Wis.	W. Jameson, Seattle.
W. H. Appleton, Everett.	W. N. Keller, Tacoma.
Joseph Aspray, Moscow, Idaho.	Ellen P. Ketchum, Augusta, Ill.
Margaret Baldwin, Seattle.	E. L. Kniskern, Centralia.
J. A. Balsiger, San Francisco.	J. L. Lane, Seattle.
H. C. Barkam, Stella.	J. F. Leslie, Waterville.
D. B. Blumenstein, Seattle.	Simon Linton, Seattle.
F. S. Bourns, Seattle.	W. C. Lippincott, Seattle.
A. L. Brandt, Seattle.	F. A. McNiven, Seattle.
P. R. Brenton, Tacoma.	T. A. McKenzie, Cunningham.
W. G. Brown, Bellingham.	Edouard Menager, Belma.
G. E. Chamberlain, Seattle.	Clara Moore, Kahlotus.
Frederick Cook, Little.	H. M. Moser, Everett.
J. F. Diddle, San Francisco.	D. A. Nicholson, Minneapolis, Minn.
R. E. Dunlop, Bickleton.	W. B. Palamountain, San Francisco.
Herman Fisher, Everson.	B. S. Paschall, Seattle.
C. C. Fletcher, Seattle.	A. H. Peacock, Seattle.
Rowe France, Seattle.	E. F. Pope, Spokane.
P. J. Gallagher, Connell.	D. H. Ransom, Clarkson.
J. W. Gaver, Seattle.	H. R. Richards, Waterville.
S. D. Giffen, Seattle.	J. W. Richardson, Seattle.
W. L. Gilbert, Everett.	E. M. Rininger, Seattle.
Alice A. Gray, Port Hadlock.	G. M. Steele, Tenino.
H. H. Gray, Port Hadlock.	E. O. Sutton, Tacoma.
S. E. Griggs, Baker City, Ore.	William Teepell, Seattle.
A. L. Harnett, Three Lakes.	A. L. Victor, Winona.
M. G. Harrell, Ellensburg.	P. R. Waughop, Seattle.
L. A. Hemenway-Cook, Sequine.	E. C. Wheeler, Fargo, N. D.
J. A. M. Hemmeon, Seattle.	E. H. Wiley, Seattle.
D. W. Henry, Endicott.	J. M. Wilson, Spokane.
	C. H. Wiseman, Spokane.

Army Medical Corps Examination. There are twenty vacancies at present in the U. S. Army Medical Corps. Examinations for these will be held on May 1 and August 1, at points convenient to the location of applicants. Candidates must be between 21 and 30 years of age, graduates of medicine and must have had at least a year's hospital training or its equivalent in practice. Applications for examination must be made to the Surgeon General, at Washington, on or before April 1 or July 1.

The American Anti-Tuberculosis League. This is one of many organizations in the land, established to fight the great "white plague." Its next session will be held at Atlanta, Ga., April 17—19. Its list of Vice-Presidents and the executive committee include representatives from many parts of the country. This meeting is brought nearer to the Northwest than some others since the Governor has been requested to appoint twenty-five delegates to it.

Superintendent of the Western Washington Hospital for the Insane. Governor Mead has appointed Dr. E. VanZandt, of Bellingham, to this

position. From a long personal acquaintance with the doctor we feel assured that the institution will be conducted in a model manner under his administration.

Crystal Springs Sanitarium. Dr. W. T. Williamson, who has been for a number of years connected with this institution, has severed his relations with it and will hereafter practice in Portland as a specialist in diseases of the nervous system.

OBITUARY.

EDMUND G. PUGSLEY, M. D.

Dr. Pugsley was born April 25, 1821, in Douglas county, New York. He died December 3, 1904, at Tacoma. After completing his medical studies he located in Stillwater, Minn., in 1853 and practised there till 1861, when he enlisted as Surgeon in the Regular Army. After the close of the war he settled in Kansas and practised there till 1889, when he moved to the State of Washington and practised for a time in Walla Walla. He retired from active work some years ago. He was a worthy and upright man, respected by all who knew him.

ROBERT WOLFGANG SCHOENLE, M. D.

Dr. Schoenle was the son of Wolfgang Schoenle, a newspaper man, and was born in Cincinnati, Ohio, in 1868. In 1878 he went to Germany, where his father was given a consular appointment. Here he studied till 1885, when he returned to Cincinnati with his parents. He entered the local University and in two years was graduated with honors. In 1890 he graduated, at the head of his class, from the University of Louisville. He served for a year at the Louisville city hospital and, after taking a course at Bellevue Hospital Medical College, in New York, located in Seattle. in 1891, as a general practitioner. In 1898 he spent several months in New York, making a special study of skin diseases, and thereafter devoted himself to this specialty. In 1901 he went to Europe and spent about a year in study of diseases of the skin, dividing the time between Berlin, Vienna, Paris, London and Copenhagen. On his return to Seattle he at once became recognized as the authority on skin diseases, of the Northwest. After securing this enviable position and having established a secure practice, he was obliged, in the winter of 1903, to abandon practice and seek restoration of health in Arizona. Thinking himself sufficiently improved, he returned to Seattle in the spring of 1904, but, after a few months was again obliged to resort to the more favorable climate of Southern California, where he died, from pulmonary tuberculosis, at Pasadena, January 24. He is survived by a mother, four brothers and a sister.

MEMORIAL MEETING.

A special memorial session of the King County Medical Society was held at the Seattle Chamber of Commerce, Jan. 28, at 8:30 p. m. The meeting was called to order by its president, Dr. Lyons, who stated the object of the meeting and spoke briefly on the death of Dr. Schoenle and the resulting loss to the profession. Dr. Raymond eulogized the deceased and reviewed the salient points in his character that appealed most strongly to his professional colleagues. This was followed by remarks from Dr. Redon, an associate of Dr. Schoenle in Vienna and Seattle. W. A. Shannon then addressed the society on the characteristics which appealed most strongly to him and gave a comprehensive review of the many phases of the deceased physician's life. C. W. Sharples described the characteristics which he felt to be paramount factors in the success which Dr. Schoenle had already attained. His thoroughness, grit, and geneality impressed themselves on those with whom he came in contact. S. J. Holmes, in a friendly and feeling address, eulogized the deceased physician and was followed by F. A. Churchill. J. B. Loughary spoke of Dr. Schoenle's energy, industry, enthusiasm, and ethical sense. Drs. J. P. Sweeny, W. T. Miles and J. R. Booth spoke of his work in the society and the loss his death meant to it. Drs. Montgomery Russell and Geo. Newlands spoke of his work for the society as President and as a member, and the benefit derived from his efforts. Ivar Janson spoke of him as a friend. Drs. S. A. Owens, P. W. Willis, C. A. Smith and others spoke of his lovable character and the esteem with which he was held by his fellow practitioners. Dr. J. B. Eagleson presented the following

RESOLUTION.

Whereas, we are stricken with grief by the death of one of our members and Ex-President and

Whereas, it is fitting that we express our respect for the character and attainments of our esteemed brother,

Therefore be it resolved, by the King County Medical Society, in special session assembled, that we deplore the untimely death of Dr. R. W. Schoenle as a great loss to our society and the medical profession of the state.

Resolved, that by his death, the profession has lost a most earnest and faithful worker, and one who by careful study and research was destined to become a leader in his line of work.

Resolved, that these resolutions be spread upon the minutes of the society and that a copy be sent to his family.

J. B. EAGLESON,
IVAR JANSON,
S. J. HOLMES,
Committee.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. H. Lyons, M. D.; Secretary, C. H. Thomson, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of February 6, President Lyons being in the chair. Fifty-two members and visitors were present.

The following were elected to membership: D. S. Shellabarger, D. H. Palmer, R. Mildred Purman and Kenneth Turner.

CLINICAL CASES.

Cerebral Hemorrhage. J. R. Booth presented two patients, the first of whom, a man of 51 years, suffered from hemorrhage in the middle lobe of the cerebellum, Dec. 21, 1904. He presented characteristic symptoms for several weeks but now shows gradual improvement.

The second case was one of pontine hemorrhage in a man of 53 years occurring Oct. 19, 1904. He did not lose consciousness at time of the attack, but was incoherent. He had paralysis of both upper and lower limbs, most marked on left side, and of right facial muscles. He has shown improvement. Both were treated with electricity, strychnine and iodide of potash. The lesions in both cases were discussed and illustrated by diagrams. They were discussed by Drs. Read, Lazelle, Durand, Rust and Horsfall.

On motion of Dr. Eagleson it was voted to postpone the remaining program of the evening and to discuss medical legislation. Dr. Durand, of Everett, read the Senate and House bills regulating the practice of osteopathy, and urged that a committee be sent to Olympia to labor with the legislative committees having them in charge. Dr. Sharples spoke at length against a separate Osteopathic Examining Board, also against the proposed compromise of appointing a Board in which they had equal representation with the old school, since they compare with the latter in the proportion of 1 to 27, as to their number in the state. A general discussion followed. Drs. Sharples, Eagleson and others who could do so were instructed to present the views of the society to the legislative committees.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of February 20, President Lyons being in the chair. Thirty-three members were present.

J. B. Loughary presented a report that was adopted, from the Committee on Legislation, advocating an increase in the salary of the Superintendent of the Hospital for the Insane, an increase in the number of resident physicians and in the number of attendants.

CLINICAL CASE.

Orthostatic or Postural Albuminuria. Kenelm Winslow reported this case, of a man of 25 years, with no previous history of illness. He found that, on rising in the morning, the urine is free from albumin but that of midday always shows it. He also has a floating kidney. The case was discussed by Drs. Randell, Janson, Peterkin and Paschall

PATHOLOGIC SPECIMENS.

Nephritic Calculi. J. B. Eagleson exhibited a stone the size of a marble, removed from a man who had pain about the kidney, nine months ago, with severe gastric pains. He was treated for 7 months for gastric ulcer. He had blood and pus in the urine, when he came under the doctor's care, tenderness over the bladder and kidney, temperature of 99° to 102°.

C. W. Sharples recited the histories of a series of cases. The first was a man who had been treated for many things, the symptoms being mostly gastric. He had pain in left side and pus in urine. Several stones were removed from the bladder and later a large number were removed from the kidney which was much disorganized. Another man presented a condition of pyonephrosis. A radiograph showed a stone in the kidney. He refused operation. Later he passed a large number of small stones from the bladder, in the doctor's office.

E. Janson exhibited a large, black, jagged stone removed from a woman of 52 years. She had hematuria and painful micturition 25 years ago. When she came under treatment of the doctor she presented a large tumor of the abdomen. Urine contained no albumin nor casts but pus. On operation the tumor proved to be a very large kidney full of pus and containing this stone.

G. S. Peterkin saw a patient five years ago in whom he diagnosed a stone in the right kidney. It was later removed in San Francisco. One and a half years ago he had pain in right side like nephritic colic. An incision showed the kidney had been removed at the previous operation. A plate showed a stone in the ureter and two in the bladder, all of which were removed and the patient relieved of pains.

PAPER.

Invisible Micro-organisms. B. S. Paschall read an interesting paper on this subject.

PIERCE COUNTY MEDICAL SOCIETY.

President, G. S. Hicks, M. D.; Secretary, A. de Y. Green, M. D.

The regular meeting of the Pierce County Medical Society was held at the Tacoma Hotel, on Feb. 7, 1905, the President, Dr. Hicks, being in the chair. Minutes of the last meeting read and accepted.

Dr. P. R. Brenton's application for membership was read and referred to the Board of Censors. Dr. Robert S. Garnett was elected to membership.

Dr. E. M. Brown, Chairman of the milk committee, reported as follows: "There has been no material change in the condition of the dairies, except that induced by winter rain and mud. A bill has been or will shortly be introduced into the Legislature by the Governor, putting the supervision and regulation of dairies, producing milk for sale, as such, under the State Board of Health.

The Committee recommends that a permanent committee be appointed which shall do everything in it's power and shall co-operate with the local and state authorities to improve the condition of the milk supplied to this city; also that this committee shall form and put into effect a plan for producing "Certified Milk."

Your committee also recommends that, when such "Certified milk" is put on the market, members of this Society make use of the milk in feeding infants and invalids."

Dr. Coleman then moved, "that the Chair appoint a permanent committee of three to act in conjunction with the State Board of Health to get a good milk supply." Carried.

Dr. Corlis read a communication from Dr. Kenelm Winslow, to Mr. Paulhamus, in which he stated that he found Mr. Paulhamus's milk highly satisfactory, the bacterial count being far below the average, only 1,500 being found in some specimens examined while in others were 250 to the cc.

Dr. Yocom, as Chairman of the committee on bacteriology and pathology, reported that the City and County had agreed to act together and employ a bacteriologist. Delay now is due to a time for the meeting.

Dr. Shaver, Chairman of committee on legislation, reported that a bill had been introduced into the legislature compelling osteopaths to take an examination.

Dr. Shaver presented a bill for printing and envelopes.

PAPER.

Hospital Contract Work. Dr. Curren, in presenting this paper said: I realize that it is a much more intricate proposition than I believed it to be. Going into the past history I find this abuse originated when the community and society were young. It has steadily grown until now thousands of people are covered by either a society or hospital contract. You will agree with me, that the hospitals in the nature of things owe their existence to the medical fraternity. It, therefore, seems strange that they should be the means of causing the physician a financial loss, in, (now understand me), not taking from him directly but by being the means whereby the public gets from him a service without recompense.

During the past there have been efforts to stop the abuse. In one case the staff resigned in a body from one of the institutions. Subsequently they returned, as the hospital promised to discontinue contracts. If I am correctly informed the promise was never fulfilled.

Now if there is an abuse, and we believe there is one, some are gainers and some are losers. There are only three parties to be considered. The party of the first part—the physician; party of second—the hospital; party of third—the patient.

The party of the first part gets nothing. Hence the origin of this discussion. The hospital makes little or nothing for, if I am correctly informed, there is no hospital in the city doing better than making running expenses. Then the party of the third part is the only gainer. In other words, when the hospital contracted to give it's own services of the physicians of the society, it placed the price so low that the physicians was left out of the consideration from a financial stand point.

Let us analyze further this situation. If I am correctly informed, the average wage of the average employee is about \$1.75 per day. Should a man, whose income is \$1.50 per day, pay as much for pro-

tection against sickness or accident as one who receives \$4.00 or more? In these times of good wages, do you consider that \$6.00 a year is sufficient for men getting from \$1.50 to \$10.00 a day to pay his doctor and hospital bill in case of sickness or accident for a year?

I am informed, in the larger plants, where things are systemized, that the regular 50 cent tax just about pays even, so far as the hospital is concerned, with just barely a little to spare. In the smaller plants there is often a loss to the hospitals. What does this mean? It means that the hospitals for the last 13 years, in their competition with each other, have given their services at just about cost, and simply devoted the services of the physicians to people who are well able to pay.

Now, what is the remedy, for I believe there must be one, if we could only hit upon it. Let me ask what would happen if all hospitals were to discontinue contracts? It is a well known fact, that the average employee in lumber camps, mills etc., has very little foresight, and it is presumed that he is not expecting the advent of sickness or accident. Should such contingency arise, they are practically paupers depending on the charity of the hospitals and physicians.

What would happen if, instead of discontinuing those contracts, it be recommended by this society that the contract is satisfactory from a business standpoint, providing every one were paid for the service he renders. In other words, that instead of contracting at a 50 cents rate, it should be between 70 cents and \$1.00 per capita, and probably arrange, on say, a percentage basis of the income of each employee.

Let us go still further in this surmise and consider it proper for employees and employers to continue to contract, with the understanding that they make it sufficient to pay for both hospitals and physicians, the employee and employers selecting which physician or physicians of this society they wish to do their work, and select which hospital they wish, understanding that the hospitals retain what they now receive for the care and maintenance of those patients, but that the funds above 50 cents received, be applied to the payment of the physicians. This crude outline is the scheme I had in mind, which may or may not be developed into something practical.

One argument against this would be, that we are going into contract work ourselves. I think, had each physician been paid a fair fee for the services given for these contract cases, there never would have been any argument on this contract business.

There is no complaint against the N. P. people and the N. P. surgeons who are contracting surgeons, because they receive pay for their services. I think you would agree with me, that there should be no argument providing there were some recompense for the medical man. There should be some way out of this difficulty, whereby the hospitals would not suffer, the medical man would receive a fair fee for his services, and the man deriving the services get a better service and be better satisfied.

I would suggest that we be not hasty in arranging for any definite solution, but appoint a committee to talk this matter over with the business men of this city and develop, if possible, some practical and business like method of procedure to be followed up later by further discussion, before any definite action is taken.

In closing, I might say that the reason of failure in efforts of this kind, undertaken by the profession, is due to the lack of concentrated effort and cohesion on the part of the members. This is so noticeable that business men and the public do not take us seriously any more. To make a success, we must get together on this, not in a half hearted way and each leaving it to the other to do, for we will certainly fail and it would be much better to leave it alone, than to take it up and not fight it through.

It was resolved that a committee of five be appointed to draw up resolutions and report at the next meeting. Carried.

Dr. Gove resolved that the President appoint a committee to draw up resolutions and report at the next meeting, on a method for collecting physicians' fees.

Dr. Gove read a list of the physicians who had professional cards in the papers. He suggested that the reputable members should refuse to have their names inserted, unless the newspapers arrange them separately, free from those who advertised in an unprofessional way.

Those present were: Eva St. C. Osborn, C. Balabanoff, Bean, Curran, Warren Brown, McNerthney, Love, Hill, Flynn, Regli, Wilson, Garnett, Harrison, Coleman, Douglas, Brenton, Keho, Rynning, Loughlen, Parker, Yocom, Corlis, A. C. Stewart, Sargentich, VanVetchen, Gove, Albert Osburn, Weichbrood, Case, Kinnear, McGear, Shaver, I. P. Balabanoff, J. R. Brown, McKone, E. M. Brown, C. P. Balabanoff, Dewey, F. J. Stewart, Trommald, Chas. McCreery, Wm. McCreery, Karshner and Green.

WHATCOM COUNTY MEDICAL SOCIETY.

President, F. J. Van Kirk, M. D.; Secretary, W. N. Hunt, M. D.

The Whatcom County Medical Society met in regular monthly session, February 13, with President Van Kirk in the chair.

Applications for membership were received from Dr. E. S. Clark, of Sumas, and from Drs. Fred. V. Shute, Jacob S. Smith, Solon R. Boynton and N. Whitney Wear, of Bellingham. Being recommended by the committee on admission and ethics the applicants were balloted on and all duly elected.

Dr. W. H. Axtell gave clinical reports of four cases presenting unusual features. One of these was a case of lobar pneumonia, complicated by meningitis but without endocarditis; another was of renal calculus with discharge of stone of large size by the urethra, and two others of appendicitis with discharge of pus into the bowels and resulting in complete recovery without operation.

The discussion was participated in by Drs. Markley, Reed, Wear and A. M. Smith.

Dr. Boynton reported informally a case of pelvic cellulitis with persisting abscess formation, apparently of tubercular origin.

BOOK REVIEWS.

Edited by

KENELM WINSLOW, M. D.

International Clinics, Vol. IV, Fourteenth Series, 1905. J. B. Lippincott Co., Philadelphia and London. \$2.00.

The volume under discussion is that for the last quarter of the last series and does not require explanation for our readers. Among the contributions which appealed to the reviewer are the following: That by Javal, On the Indications For The Dechloridation Treatment, is interesting in itself and carries weight as written by the discoverer of this new method of cure for dropsy. The value of radium in lupus and rodent ulcer is described by Metzenbaum and appears to have been curative—at any rate temporarily—in cases which resisted X-ray treatment and at the expenditure of a very little money and in a most convenient manner, by plastering small glass tubes containing the element over the lesion.

Senator writes a short monograph on, The Clinical Significance Of Albumosuria, and gives tests for same. They are recognized by their precipitation in cold urine by nitric acid, acetic acid and common salt, or potassium ferrocyanide; the precipitate dissolving on heating but reappearing on cooling. There are excellent clinical lectures on, Diagnosis of Enlargements of the Liver; Diagnosis of Joint Diseases; and on, Patients in Extremis, by Crombie, Solis Cohen and Lejars respectively. Sir Dyce Duckworth writes on, Gout In The United States, and affirms that its increase is cotemporaneous with the increase of city life and its attendant strife and nervous anxiety, accomplished by a lack of fresh air and indulgence in proteid food and alcohol.

One of the most valuable articles is that by Rudolf, of Toronto, on Functional Heart Murmurs. It is very clearly written and very painstaking in elucidation of all the finer diagnostic features and will prove a great value to the general practitioner. One of the salient little known characteristics, relative to functional murmurs, is their absence in the sitting or upright position but loudness in the horizontal posture.

Space does not permit even mention of some of the most notable articles in this remarkably good number of the series but we may not close without mention of Bradford's beautifully illustrated and practical monograph on, Lateral Curvature; of The Symptomatology And Diagnosis of Glenard's Disease, by Gallant; and of the very complete and exhaustive paper by Craig on, Amebic Infections.

WINSLOW.

A Practical Treatise on Nervous Exhaustion, Its Symptoms, Nature, Sequences And Treatment. By George M. Beard, A. M., M. D. Edited by A. D. Rockwell, A. M., M. D. Fifth Edition—Enlarged. Cloth pp 288, \$2.00. E. B. Treat & Co., New York.

It is well known that the name Neurasthenia—while not coined by the late Beard—was first popularized by him and that to the study of this condition he gave his life work. The present volume embodies his ideas and experience with nervous prostration and there is little

that can be added to the clinical picture which was originally portrayed in all its ramifications by him. In fact, for the symptomology of neurasthenia we do not know a book which is more complete and vivid in its description. The production of impotence and seminal discharges, which the author attributes to nervous exhaustion, is disputed by many, being no doubt more commonly seen in the reverse order, the neurasthenia being secondary to disease of the prostatic urethra. The cases of albuminuria, which the author takes to be impending Bright's disease and which he says are induced by neurasthenia and finds curable by treatment of the causative affection, are probably what have since his day been shown to be cases of postural albuminuria which are almost invariably associated with nervous exhaustion and result in recovery and not in Bright's disease, in the vast number of cases. The treatment is largely tinctured with a penchant for electricity with which the name of the author is always associated. The Weir Mitchell rest cure is not even described and this has been the most usual single mode of treatment for grave cases. The diagnosis, which the editor has inserted, between lithemia and neurasthenia, would meet with great opposition from some quarters, as many able medical men contend that the terms are synonymous, and lithemia in New York becomes neurasthenia in Boston.

For an original and very complete description of neurasthenia, embodying the ideas of the man who made this long and close study of the disease, we can commend the work. WINSLOW.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR JAN., 1905.

Counties.	Smallpox	Scarlet Fever		Diphtheria		Typhoid Fever		
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Chehalis	0	0	0	0	0	0	2	1
Chelan	0	0	0	0	8	0	0	0
Clarke	0	0	0	0	2	1	0	0
Cowlitz	0	0	0	0	5	0	1	0
Douglas	0	0	2	0	7	1	0	0
Garfield	0	0	2	0	0	0	1	0
King	0	0	2	0	2	0	2	0
Kittitas	0	0	1	0	6	1	0	0
Klickitat	0	0	4	0	0	0	0	0
Lewis	0	0	0	0	0	0	3	0
Lincoln	1	0	3	0	0	0	0	0
Mason	0	0	1	0	1	0	0	0
Okanogan	0	0	25	2	0	0	0	0
Pacific	0	0	0	0	0	0	1	0
Pierce	0	0	0	0	3	0	0	0
Skagit	0	0	0	0	9	1	0	0
Skamania	0	0	0	0	0	0	1	0
Snohomish	0	0	3	0	5	0	4	0
Spokane	0	0	5	0	4	0	0	0
Walla Walla	1	0	1	0	5	0	0	0
Whitman	0	0	0	0	0	0	1	0
Yakima	0	0	0	0	1	0	0	0
Bellingham (city)	0	0	1	0	0	0	0	0
Seattle	0	0	13	0	17	2	7	1
Spokane	0	0	7	0	23	3	3	3
Tacoma	0	0	11	0	8	0	0	1
Total	2	0	82	2	106	9	26	6
January, 1904	46	1	144	6	142	18	86	16

ELMER E. HEG, Secretary.

NORTH WEST MEDICINE

April, 1905.

ORIGINAL CONTRIBUTIONS.

INTESTINAL INTUSSUSCEPTION.*

By W. S. DURAND, M. D.,

EVERETT, WASH.

The ordinary definition given of intestinal intussusception is an invagination of some part of the bowel into another immediately adjoining portion. The portion of bowel which receives the invagination is termed the intussusciens, the invaginated portion the intussusceptum. The intussusciens is made up of a single layer of intestines, while the intussusceptum consists of two layers and of a portion of mesentery which has been drawn into the tube. The inner layer of the intussusceptum is called the entering layer and the outer layer the returning layer. The portion of mesentery drawn into the tube becomes wider and wider at its base as it is drawn in, forming a conical mass as it enters the intestine. This produces traction on the intussusceptum, which results in a concavity on the side to which the mesentery is attached and, by its traction, converts the circular opening in the intestine into a slit.

Varieties or classifications. An invagination may take place anywhere along the intestinal canal and one may therefore name four varieties:

(1) Enteric; (2) Colic; (3) Ileocecal; (4) Ileocolic.

The most exhaustive article on this subject in recent literature which I have been able to find is by Edward M. Corner, of London, in *Annals of Surgery*, vol. 38, "On the Pathology and Classification of Intussusceptions, with a resume of those arising from the Appendix Ceci." Any one who is interested in intussusception will do well to read this article, as it is replete with valuable information.

We may further classify intussusceptions into single, double, triple, etc.

*Read before the Washington State Medical Association, Seattle, Washington, July 12-14, 1904.

I believe the case which I report to have been one of the double variety and which Corner would classify as colic-ileocecal, the caput coli of cecum being invaginated first, blocking the valve, causing ileocecal intussusception. You will notice in the specimen which I shall presently pass that the cecum is completely inverted, with a portion of the appendix. I incised the caput coli longitudinally, which shows the appendix. On this point Corner writes, "All of the cecum which lies below the level of the ileocecal valve, i. e., the caput coli and the appendix, if invaginated, is very prone to be complicated by the addition of a second invagination of the ileocecal variety, colic-ileocecal. This form of invagination is doubtless much more common than is thought, but is not so frequent as that in which trouble begins in the lower part of the ileum."

Etiology. The most frequent etiologic factor concerned in intussusception is irregular peristalsis which may be due either to diarrhea, constipation, enteroliths, colic or paralysis. Treves states that, "In a considerable number of cases, either a Meckel's diverticulum (turned inside out) or a polypus has been the cause of intussusception." Trauma resulting from blows on the abdomen, "jumping" the baby up and down and jumping rope are mentioned as causes. J. Collins Warren, of Harvard, mentions a case seen by him in which, "A boy of ten brought on an attack by drawing himself to and fro on his belly on the edge of the table."

As to the manner of origin of invagination, Nothnagle's classical experiments, which Treves quotes in his "Intestinal Obstruction," have done much to fix the opinion that the invagination arises from a circular contraction of the intestine caused by irregular peristalsis. Corner believes that a lateral dimple in the bowel is much more frequently the origin.

Age and sex play a most important influence. Lewis H. Adler, of Philadelphia, writes that nearly forty per cent. of the cases occur in children. In a series of five hundred fatal cases from some form of intestinal obstruction, Briton writes that 215 were due to invagination. In 103 cases collected from literature Wiggin noted that 50 per cent. occurred during the fourth, fifth and sixth months in equal proportion, 75 per cent. of the patients being males. All but twelve cases were of the ileocecal variety.

Butler states, "In intussusception there are no previous symptoms. The patient is usually an infant or child (56 per cent. of all cases occurring from the fourth month to the tenth year)."

Corner writes that, "One thing is certain in regard to the etiology of this subject, and that is the association of intussusception with improper feeding; it is more common than the casual hospital note would lead one to believe. The mothers are naturally frightened and do not tell the truth for fear of giving the opinion that they are responsible for their infants' distressful condition, but if inquiries are made carefully, it will be found that the onset of the pain begun shortly after the child had eaten a piece of hard biscuit or the like."

Symptoms and Course. Intussusception may run an acute or chronic course. In the acute cases death may occur within twenty-four hours, while the subacute may last as long as two weeks. It is important to remember that the chronic form may last several years. In the acute form sudden abdominal pain and vomiting are the first symptoms. There is no other form of intestinal obstruction in which the pain is more severe. This is soon followed by the passage of bloody stools and mucus. According to Rotch, there is no other disease in which an infant will be attacked so suddenly with the clinical symptoms of abdominal pain, combined with bloody discharges from the bowels (Warren). In the formation of the intussusception the portion of mesentery which is carried in with the intussusception becomes constricted, congestion of the mucosa of the intestine supplied by this portion of the mesentery results, giving rise eventually to hemorrhage. This symptom is a very important one because, with the exception of twists and knots, no other form of obstruction is accompanied by bloody evacuations. Such obstruction may, however, occur in dysentery and rectal polypi in children (Warren).

Tumor is rare except in intussusception and in this variety of obstruction it is admitted by all to be a most important symptom. The location of the tumor will, of course, depend upon the location of the intussusception. *I have not been able to find in the literature hiccough given, but in the case which I report it was the gravest symptom which I had to contend with and was absolutely the reason why an operation was not performed.* This so exhausted the patient that we were always afraid thereafter to operate, fearing death on the table. Chronic intussusception is usually ushered in with an acute attack, which subsides from time to time with returning acute exacerbations.

Diagnosis. In many text-books which one reads on this subject, one would think from the exact symptoms and rules laid down for the diagnosis of this condition that it is a very easy matter.

For example, in Sajou's Annual and Analytical Cyclopedia of Practical Medicine, vol. 5, one reads under this heading, "An invagination of one portion of the intestine into an adjoining portion is, as a rule, easily recognized." My position is exactly the reverse of this and to lend weight to the opinion that it is often found a very difficult condition to diagnose I wish to make a few quotations from the men who have had by far the most experience with this class of cases. I wish particularly to emphasize the extreme difficulty which one encounters in many of these cases, especially in chronic forms of intestinal obstruction due to intussusception. I know that I have never made as many diagnoses and theorized as much to account for the symptoms which arose as in the case which I have to report.

Francis J. Shephard, in the last edition of the Reference Handbook of the Medical Sciences, writes, "The practitioner without much experience, looking into his text book for guidance might imagine, from the very exact description given of the symptoms peculiar to each form of intestinal obstruction, that the differential diagnosis is a simple matter, and that should he meet with a case he would only have to employ a certain method of treatment for a certain form of obstruction and so relieve his patient, if relief were possible. In actual practice, however, the diagnosis of the special form of obstruction we have before us is by no means easy, and in most cases the exact nature of the affection cannot be determined except by laparotomy or on the post-mortem table. The sermons preached daily by the morbid anatomists are valuable checks to the sin of diagnostic dogmatism in abdominal affection."

This author quotes Dr. Barr as saying, "If you look upon all cases where you have got severe pain in the abdomen, constipation, and vomiting with perhaps more or less shock, as cases of intestinal intussusception then, no matter what line of palliative treatment you adopt, you ought to have a very poor percentage of recoveries; but if you belong to a more exclusive school and in your anxiety for accurate diagnosis eliminate all cases of colic, constipation, enteralgia, etc., then you will find you have a terrible disease left which tends more frequently toward a fatal issue than of recovery."

Treves states, "For the chronic form of intussusception, abdominal section is the only suitable treatment; indeed, its diagnosis is usually difficult or impossible until the abdomen has been opened."

Corner refers to the same fact, saying that the condition may

"be quite undiagnosable without laparotomy." These sayings which I have quoted are, without question, by men who have in recent years had the most experience with the condition and their opinion is unanimous in declaring the difficulty of diagnosis in this condition without laparotomy.

Treatment. The old authors relied upon opium, rest and starvation. Today those who do not operate rely on high enemata, inflation of bowel with air, dilation of the colon with sodium bicarbonate and tartaric acid, and inversion of the patient. To my mind, once a positive diagnosis is made the operative procedure is the only rational one and one need only peruse the literature to find ample and abundant corroboration of this. Treves states, "Spontaneous recovery is so rare that it may be disregarded and although a fair percentage may be relieved by inflation with air and water, the method is uncertain and attended with the risk of rupture of the intestine." Warren says, "Laparotomy for this form of obstruction may be regarded, when compared with enemata, as a method of precision."

Corner writes, "If the views that have been suggested here are right, they shed a very bright light upon the dangers and deceits of the treatment by inflation alone. In acute cases, beginning in the last half-inch of the ileum, it will probably be necessary to stretch the cecum sufficiently to dilate the ileocecal valve, in order to release the ileum. And, unfortunately, the direction of the phlanges of the valve is such that the more the cecum is distended the tighter is the valve closed. It also shows that, though the tumor may disappear through the reduction of the colic parts of the intussusception, the ileum may remain fixed in the jaws of the ileocecal valve, and be quite undiagnosable without laparotomy. Operation, therefore, is the only intelligible method of treatment."

Report of Case. F. J. R., male, age 39, consulted me first about May 14, 1904, complaining of a general debilitated condition, intense constipation and much pain in the abdomen. The symptom-complex which I elicited from the patient tallied very closely with that of neurasthenia and led me to believe that the patient was suffering from the acute type. He had located in Everett some two years before, had invested several thousand dollars in the lumber business, half of which he claimed to have lost, had gone into the retail lumber business and had practically overseen and attended to the books of the entire business. He had worried very much over regaining the money which he had lost in the business and had worked almost continuously.

The pain in the abdomen had begun in the region of the caput

coli some six months prior to his first consultation, and before consulting me he had consulted, at different times, two other physicians in Everett, and had also consulted and treated with one or two in Seattle. I made a careful examination of the abdomen and was unable to find any objective evidence. The patient had always been more or less constipated and for the six months prior to his consulting me had practically never had a movement of the bowels without taking some laxative. He was a tall, slender man, about five feet eleven inches, was very much emaciated and mentally melancholic often crying on the least provocation, all of which pointed very strongly to acute neurasthenia.

At no time had he been confined to his bed, so I advised him to go to the mountains for a short period of recreation, and as he was very anemic I prescribed a laxative and the compound Bland pill. He continued overseeing his business and I did not see him again for about a week, when he returned with practically the same complaints, and I again urged him to take a short vacation in the mountains, and in a week or so from that time he left Everett. He was gone about ten days, and two or three days after his return I was called to the house, where I found him in bed suffering with much pain in the left hypochondriac region. I again made a careful examination of the abdomen and found a tumor in the left hypochondrium in the vicinity of the splenic flexure and spleen, which I made up my mind was a left floating kidney, accompanying the general neurasthenic condition. I informed the patient of this, telling him that an operation should be performed and the kidney fixed, but suggested that he first call in a consultant. I called in Dr. Hathaway, who, without any knowledge whatever of the previous symptoms or history made the same diagnosis, absolutely without influence on my part. The patient then asked to have Dr. Howard in consultation. He was called, and he, too, without any previous knowledge of the symptom-complex or history of the patient, made the same diagnosis of a floating kidney.

Perhaps it may be well to state at this time that the patient had never had diarrhea or bloody stools and had always succeeded in moving the bowels with laxatives or cathartics. So, too, the tumor presented, as we thought, the characteristics of a floating kidney, as we could crowd it up into the region of the left kidney, or replace it, as we supposed.

Dr. Howard consulted on the case on Thursday, June 18, and it was then decided that the patient be moved to the hospital on Saturday and be prepared for operation on the following Monday morning. On the day following the consultation, however, he developed a severe case of hiccough, which persisted all night, in spite of all that could be done to control it, and the patient was moved Saturday morning to the hospital, still hiccoughing. This proved to be a very distressful symptom and was practically continuous from the night of June 19 to July 1. The patient vomited quite profusely a greenish liquid, was constipated, but no bloody stools were as yet seen.

July 4 the first passage of "bloody shreds" was recorded by the nurse. From then there were occasional bloody stools, with diarrhea and constipation alternating. All this time, and until death, it was practically never necessary to use opiates to relieve pain.

As the patient began to hiccough on Friday night, June 19, and continued until July 1, his pulse became so weak and rapid, emaciation so extreme and he so weak, that it was not deemed wise to operate, as we feared death on the table.

Hiccough returned occasionally from July 13 to July 16. Blood would disappear from the stools occasionally, and constipation and diarrhea with bloody stools would alternate. Mucous colitis, one of the complicating symptoms of neurasthenia, was thought of, but in the perusal of literature on this subject I found that hemorrhage was extremely rare. Mucous stools without blood were very frequently passed, and there was occasional distention of the abdomen.

The temperature hovered about the normal throughout, running from 97.5° to 100°. The pulse, however, was persistently high, being from 100 upward, and during hiccough ranging over 110 to where it could not be counted. After hiccough subsided pulse gradually lowered to about 100, and temperature remained practically 98° to 98.6°, being occasionally as low as 97°. August 6 the patient was taken home. At this time he was sleeping well, but had occasional short, delirious attacks. After returning home he was much more contented and pulse fell to below 100, as low as 80, on August 26. Temperature at this time was practically always sub-normal. Pulse ran 80 to 90 from August 28 to October 18, then began a little higher average, 90 to 100. Continuous diarrhea began almost as soon as he returned home, and practically continued, with the exception of an occasional period of a few days of intense constipation, until death. November 10 temperature was 98°; pulse, 78; respiration 16. November 12, temperature, 97°; pulse, 86; respiration, 18. On this day, at 11 a. m., the patient died, about one year from the beginning of the trouble.

It was very difficult to secure a post-mortem, and consent was granted only upon guarantee that nothing would be removed from the body. Two brothers-in-law of the patient were present. After opening the abdomen, however, they permitted me to remove the small section of the caput coli which I passed around.

Upon opening the abdomen it was very difficult to determine, at first, just what the condition was. We found it was not the kidney, but apparently a mass in the upper part of the descending colon, at the beginning of the sigmoid flexure. In looking for the cecum, however, I found that this was absent, with the small intestine entering the large bowel. Although I made all the traction that the intestine would stand, it was impossible to dislodge it from its position, owing to adhesions. Owing to the small in-

cision made in the abdomen, the post-mortem was somewhat difficult and the examination was necessarily limited. I then made a longitudinal incision over the mass in the beginning of the sigmoid flexure and extracted the tumor. We were unable to reduce the intussusception, and it is certain that had it been on the living subject the condition would never have been reduced. One can only surmise what he might have done, in case of operation, had he been able to recognize the condition.

In closing, I wish to emphasize a few symptoms of the most importance in the diagnosis of this condition and a few measures that I believe should be used invariably. Of the symptoms, I think the most important are the pain, bloody stools and tumor. In determining whether there is an obstruction and in making up one's mind as to its location, I think it is important to keep in mind where the contents of the intestine begin to be fecal. This, as we know, takes place in the latter part of the ileum, so that, should the vomitus be fecal, it will indicate that the obstruction is at some point beyond the latter part of the ileum. So, too, the percentage of cases of occurrence of intussusception in the region of the ileocecal valve would lend weight to it being more often in this locality.

A measure which is at present used for treatment I believe should be used rather as a measure in diagnosis. It is well to remember that the average colon, under normal circumstances, will hold one and one-half gallons of water. By inflating the colon with water, therefore, and measuring the quantity, it would seem that the quantity of water which one can get into it will be a very strong corroborative point in the diagnosis. I do not believe this measure should be used in the treatment of the condition, for, if the inflation is crowded, there is liable to be trouble in tearing of the intestine. When this measure is undertaken, I believe it should be done just prior to or with the patient ready for operation, and if at this time one has the previous symptom-complex of sudden and severe pain in the abdomen, bloody stools, vomiting, obstruction, tumor, and one is not able to get a reasonable quantity of fluid into the bowel, it seems that the diagnosis should be clinched.

BIBLIOGRAPHY.

- Treves. *Operative Surgery*, Vol. 2, edition 1903.
Annals of Surgery, Vol. 38, July to December, 1903.
Sajou's Annual and Analytical Cyclopedic of Practical Medicine, Vol. 5.
Warren-Gould. *International Text Book of Surgery*.
Reference Hand Book of the Medical Sciences, Vol. 5.

PANCREATIC INFLAMMATIONS IN THEIR RELATIONSHIP TO CHOLELITHIASIS, AND THEIR TREATMENT.

By A. W. MAYO ROBSON, F. R. C. S.

LONDON, ENGLAND.

Vice-President and Hunterian Professor, Royal College of Surgeons, England.

(Continued.)

ETIOLOGY.

The etiology of pancreatitis may be classified under predisposing and exciting causes. Among the predisposing causes are:—

- (a) Obstruction in the ducts, the result of gall stones, duodenal catarrh, pancreatic calculi, cancer of the papilla or of the head of the pancreas, ulcer of the duodenum, followed by the cicatricial stenosis of the papilla, ascarides and lumbrici.
- (b) Injury either from a bruise as by manipulation in operating, or from a crush, as by a blow in the epigastrium, or from wounding by a sharp instrument.
- (c) Hemorrhage into the gland.
- (d) General ailments, such as typhoid fever, influenza and mumps.
- (e) Certain anatomic peculiarities in the pancreas or its ducts.
- (f) Atheroma or fatty degeneration of the blood vessels.
- (g) New growth, e. g., cancer or sarcoma.

The chief exciting causes are:—

1. Infection conveyed—

- (a) From the blood as in syphilis or pyemia.
- (b) From the duodenum, as in gall stone obstruction or gastro-intestinal catarrh.
- (c) By extension inwards from adjoining organs as in gastric ulcer or cancer eroding the pancreas.

2. Irritation as in alcoholism (doubtful).

So long as the concretions remain in the gall bladder or cystic duct it is unlikely that the pancreas will participate in the cholecystitis, unless the gland has been originally infected from the duodenum, as possibly occurring in the following case:—In this case, gall stones in the gall bladder were associated with catarrh of the pancreas, which must have either been due to an extension of the catarrh of the gall bladder and bile ducts to the pancreas,

or have resulted from the passage of a gall stone from the common duct on some further occasion, which had led to infection both of the bile and pancreatic ducts.

A lady, aged 50, had for several years suffered from attacks of distinct biliary colic, which during the past two months had been followed by jaundice, fever and collapse. There had recently been loss of flesh. On examining the urine, fine pancreatic crystals were discovered, and at the operation on April 30, 1903, forty gall stones were removed from the gall bladder and cystic duct. None were found in the common duct, though the head of the pancreas was distinctly swollen and harder than normal. The gall bladder was drained. The patient made a good recovery and is now well. Normal weight has been regained and there is no longer any evidence of disturbed metabolism.

Even if gall stones pass into the common duct and are not long detained in it, a catarrhal pancreatitis may supervene, as in the following case:—

A patient, aged 38, after being subject to indigestion for years, had biliary colic in July, 1899, and passed gall stones, which were found in the motions. Subsequently the attacks of pain were frequent and severe, necessitating the use of morphia. They were usually accompanied by icterus, which, though slight, probably never quite disappeared. When I saw him in November, 1903, he had lost flesh, and was prevented from carrying on his professional duties. The metabolic and digestive signs of pancreatic catarrh were all marked. At the operation on November 23, 1903, no gall stones were found, though the gall bladder was thickened and adherent to contiguous organs. The pancreas was firmer than usual, though not very much swollen. Cholecystotomy led to recovery, though the drainage of the bile ducts had to be continued for three months. The patient is now well.

In this case the pancreatic catarrh had evidently been set up by the passage of gall stones through the common duct. The pancreatitis had, however, persisted, and was not only keeping up painful symptoms, but leading to obstruction of the bile ducts and to interference with nutrition. Now this case would formerly have been called catarrhal jaundice, whereas it was really due to catarrhal pancreatitis, as proved by the digestive and metabolic signs, and later by operation.

I could relate other instances, but this case will suffice to show that pancreatic catarrh may be produced by a passing gall stone, and persist after the cause has disappeared, and that drainage of the bile ducts is followed by cure.

If, after some time, the stone passes, the pancreatic catarrh may subside and leave no trace, or the swelling of the pancreas may persist, become true interstitial pancreatitis, and for a long time

keep up pressure on the common bile duct, leading to a persistence of the jaundice, though there is no concretion left to cause obstruction nor any evidence of disease of the liver beyond the jaundice due to mechanical obstruction. Thus may be explained some of the cases of very chronic jaundice with so-called chronic biliary catarrh, a number of which cases I have operated on.

If the gall stone causing obstruction be removed by operation from the common duct, and drainage of the infected bile ducts be effected before the catarrhal has passed into the interstitial form of pancreatitis, a complete cure may be expected, as in the following cases:—

The patient, a lady, aged 34, had had symptoms of gall stones for four years, and had been under treatment for ulcer of the stomach, but there had been no hematemesis. Four months previously jaundice had come on after an attack of pain, since which time the attacks had been frequent, and were always followed by an increase of the jaundice and by rigors and fever. On one occasion the gall bladder was distended; when seen there was a slight tinge of jaundice. She had lost three stones in weight. There was an absence of enlargement of the liver or gall bladder, but marked tenderness over the gall bladder was elicited. Pancreatic crystals were found in the urine, and digestive symptoms were present.

At the operation on April 23, 1903, one large calculus was removed from the cystic duct and some smaller ones from the common duct by choledochotomy through separate incisions in the two ducts. The common duct was sutured and the cystic duct drained. The pancreas was found to be enlarged and inflamed. The patient made a good recovery, and is now well.

If the gall stone obstructs the common duct for long, what was at first a simple catarrhal pancreatitis may assume a truly interstitial form, and unless drainage of the bile ducts is continued for some time or permanent drainage in the shape of cholecystenterostomy is established, relapse will speedily occur.

The following case is an example: Mrs. W—, aged 57, had had two operations previously in Scotland. On the occasion of the first operation, in September, 1902, a number of gall stones were removed from the gall bladder, which was drained for a few days, but after the wound had healed the attacks had been repeated as before. A second operation was undertaken by the same surgeon without finding anything definite. After the wound had healed and the temporary drainage had ceased, the attacks again returned, and the subsequent history up to the time of my seeing her was that she had almost daily attacks of pain, followed by slight jaundice, and on five or six occasions, usually at intervals of a month, she had had violent seizures, necessitating the use of morphia. About five weeks ago the pain was so violent as to cause her to

faint, and just before coming to London another violent seizure, accompanied by collapse, occurred. A rigor, with high temperature, 104° or 105° , had followed each attack, the temperature between the seizures rising nightly to 101° or 102° F. She was rapidly losing flesh and strength. An examination of the urine by Dr. Cammidge showed no albumin or sugar, but well-marked pancreatic crystals, which dissolved in from one to one and a half minutes, rendering, along with other signs, the diagnosis of chronic

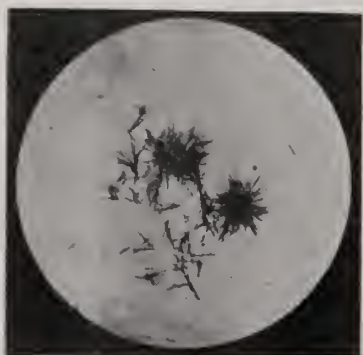


Fig. 25. Crystals from a case of Catarrhal or slight Interstitial Pancreatitis obtained by Cammidge's reaction.

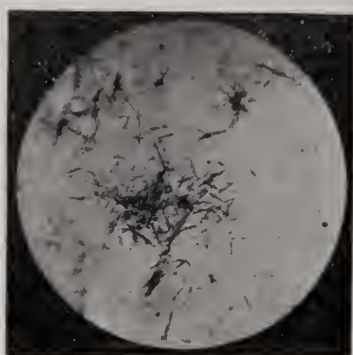


Fig. 26. Crystals from a case of Chronic Interstitial Pancreatitis obtained by Cammidge's reaction.

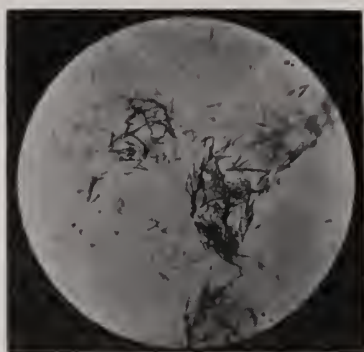


Fig. 27. Crystals from a case of cancer of Pancreas obtained by Cammidge's reaction.

pancreatitis certain. (Figs. 25-27.) At the operation on November 20, 1903, the adhesions were found to be most extensive. There were well-marked enlargement and hardness of the pancreas along its whole length, but it was not nodular. The common duct was carefully examined, but found to be free from concretions, and on opening the gall bladder a probe was passed through it and the cystic and common ducts into the duodenum. While the probe was in position, the pancreas was manipulated and found to compress the duct, thus accounting for the obstruction. Chol-

ecystenterostomy was therefore performed, the union being effected to the colon by means of a decalcified bone bobbin. At the time of operation the gall bladder was separated from its fissure in the liver, in order to make it reach the bowel without tension. For a few days after operation, bile was discharged from the torn liver surface in free quantities, but there was no leakage from the newly-joined viscera. As the bile obtained a free passage into the bowel, it gradually ceased being discharged from the liver, and the tube was able to be left out at the end of ten days. The wound healed by first intention, and the patient was up at the end of three weeks. She was then able to take and digest her food, and has since been quite free from her old attacks.

If the interstitial pancreatitis has persisted for some length of time, it is possible that recovery may be incomplete, and although the jaundice may disappear and the digestive symptoms may be alleviated, the metabolic signs found in the urine many months, or even years, subsequently show that the recovery is only partial.

The following is an example: Mr. D—, aged 45, had had painful epigastric attacks for twelve months, with vomiting, but no jaundice. There had been deep jaundice since January 1st, with ague-like attacks, and the patient had lost $2\frac{1}{2}$ stones in weight. Cholecystotomy was performed on March 29, 1898. Thickened duct felt, together with swelling of the pancreas, thought to be cancer of the head of the pancreas and common bile duct. Drainage of the gall bladder for ten days.

The patient made a complete recovery, and in August was apparently quite well, having gained a stone in weight. He was in good health in 1901. Though apparently well in January, 1904, an examination of the urine gave the pancreatic reaction and showed that the original damage to the pancreas had not been completely repaired.

This, along with other cases that I know of, leads me to think that it is unwise not to thoroughly drain the bile ducts, and I consider that drainage ought to be continued until the bile becomes free from organisms and its normal route is free from obstruction.

In certain cases, doubtless, recovery occurs without operation, and I have notes of one case where a gentleman of advanced age had deep jaundice associated with glycosuria, and with well-marked pancreatic reaction in the urine, pointing to the case being one of pancreatic diabetes. Under general treatment, combined with massage, he regained his health, and is now said to be quite well. In this case it is quite possible that the massage may have dislodged a concretion which was blocking the common bile duct and the pancreatic duct, but as no search was made in the feces, this can

not be proved. As the patient lives abroad, we have not been able to test the urine, which, I suspect, will still contain glucose.

This case raises the question whether operation ought to be declined because of the presence of a small amount of sugar in the urine. In future, should the patient's condition be fair, I shall feel inclined to recommend operation in order to remove the obstruction, and by drainage to arrest the pathologic process going on in the pancreas.

SUPPURATIVE CATARRH.

It is well known that in some cases of obstruction of the common bile duct by gall stones, the infective cholangitis may pass on into suppurative cholangitis, an extremely serious and frequently fatal disease; but until I reported my cases in the Hunterian lectures, I believe it had never been suggested that the same condition may occur in the pancreatic ducts. The termination probably depends both on the vital condition of the individual and on the form of the infection, for in one of my cases streptococci were found in the pus, whereas usually the organism is the bacillus coli.

The following cases exemplify three different types of suppurative catarrh, which, it will be seen, is an extremely serious, though not necessarily a hopeless disease if treated early. If the suppurative catarrh be diffuse and involve the ducts throughout the liver and pancreas, the associated septicemia is very serious, as the following case, seen with Dr. Hector Mackenzie, proves:—

Mr. W—, aged 65 years, seen on January 4, 1904. He had had attacks of gall stones seven years before and two seizures during the last two years, both of which were followed by jaundice. His present illness started on November 23 with severe pain, followed by jaundice. On December 20 a very severe attack of colic was followed by more intense jaundice and enlargement of the liver, with irregular temperature. The patient had had albuminuria for seven or eight years. When I saw him there was tenderness above and to the right of the umbilicus, and he had severe pain. A specimen of the urine was examined, and found to give a marked pancreatic reaction (pointing to acute inflammation), and to contain calcium oxalate crystals. On opening the abdomen on January 7, firm adhesions were encountered, and on detaching the omentum, phlegmonous cholecystitis was discovered, with gangrene of the fundus of the gall bladder; pus escaped freely, but the peritoneal cavity was saved from being soiled by means of sponge packing. The common duct was enormously dilated and embraced by the swollen pancreas, but no gall stones could be felt. On opening the common duct a large quantity of pus and bile escaped. By means of the scoop passed into the common duct and the fingers passed behind the pancreas a number of gall stones were extracted,

but a hardness could be felt at the papilla which could not be removed. On laying this open after incising the duodenum, a gall stone was removed from the ampulla of Vater, and pus was immediately seen to flow from the duct of Wirsung. The duodenum was then closed, the gangrenous upper part of the gall bladder was removed and the common duct and gall bladder were drained. The patient bore the operation well, and from that time onward had no more fever, but for the fortnight during which he lived his temperature was persistently subnormal. He had no peritoneal symptoms, and the bowels were moved freely from the second day onward. Calcium chloride had been given before operation, and at the operation he lost no blood. None was given subsequently to operation, as the rectum was intolerant of injections, and on the eighth day there was rather free oozing of blood from the drainage track, which had to be treated by gauze packing, after which the calcium chloride was resumed, and no more bleeding occurred. On the eleventh day the patient became somnolent and declined to take food. From this time he got gradually weaker, and died comatose on the fourteenth day in a condition almost resembling that associated with acute atrophy of the liver.

If the suppurative catarrh takes on a very acute form, the development of abscesses in the liver and pancreas may occur, and the condition becomes one of pyemia, when the chance of recovery will be very remote, as in the following case:—

The patient, a lady, aged 65 years, seen with Sir William Broadbent and Dr. Bousfield, was suffering from deep jaundice, suppurative cholangitis, pancreatitis and parotitis of pyemic origin; rigors with a temperature of 105° occurring daily or even twice a day, the acute symptoms having come on within a fortnight, though there had been a history of gall stones for years. The common and hepatic ducts were filled with gall stones which were removed through an incision in the common duct, and a large quantity of extremely offensive pus and bile were evacuated. At the same time the right parotid gland (the seat of inflammation) was incised. The bile was examined bacteriologically, and found to contain the bacillus coli in large numbers; next in numbers were streptococci and another rather fine bacillus, which appeared to grow anaerobically only, and there was a fine spore-bearing organism, probably the bacillus coli putrefaciens. The urine gave a well-marked pancreatic reaction. The patient, who had also heart disease and albuminuria, appeared to be doing well for 24 hours, when she died suddenly, apparently from cardiac thrombosis.

If the suppurative catarrh assumes a subacute form, it may end in a simple pancreatic abscess, which can be successfully evacuated, as in the following case:—

Mrs. P—, aged 61, gave the history of having been subject to biliary colic for three or four years, though there had been no jaundice till two and a half years ago, since which time the at-

tacks of pain had always been accompanied by rigors and by deepening of the jaundice. Within a short time of my seeing her, the symptoms had become aggravated, and the loss of flesh had become extreme. The patient was so ill that the question of cancer of the pancreas was raised, but the pancreatic reaction in the urine definitely pointed to inflammation and not to growth. At the operation I found the pancreatic portion of the common duct packed with large gall stones, and the head of the pancreas was markedly swollen. On passing the scoop through the opening in the common duct from the pancreatic portion of the duct, a stone the size of a cherry was extracted, it being covered with offensive pus. This had apparently lodged in a cavity in the head of the pancreas. A profuse discharge of bile and offensive pancreatic fluid with pus continued to pass for a week, after which the discharge became gradually less. She made a good recovery, and remains well a year later.

CIRRHOSIS OR ATROPHY OF PANCREAS.

If the infective catarrhal condition persists and does not assume the more dangerous suppurative form, or even if simple obstruction of the pancreatic duct persists from any cause with only mild infection, we may have an almost analogous condition to the one occurring in cirrhosis of the liver, due to the development of fibrous tissue. This more chronic form of interstitial pancreatitis ends in cirrhosis or atrophy of the pancreas, which is probably inevitably fatal from glycosuria. I think it is possible that if it were discovered at an early stage, it might be arrested by the removal of the cause, though, when fully developed, the condition is probably not amenable to any form of treatment.

ACUTE PANCREATITIS.

If a small gall stone happens to descend into an unusually large diverticulum of Vater and to lodge there, it will make a through channel from the common bile duct into the pancreatic duct, and so set up acute pancreatitis, the infected bile being forced direct into the pancreatic duct, as in Dr. Halsted's case, reported in Opie's work on the pancreas.

But the anatomic conditions just mentioned, though evidently potent, are certainly not necessary for the production of acute pancreatitis. Any gall stone or stones impacted in the pancreatic portion of the duct, or even filling the ampulla of Vater, may produce acute pancreatitis as in a case under the care of Dr. Fison of Salisbury (*Lancet*, 1904).

A man, aged 39, had a sharp attack of diarrhea on March 27, 1904, having been previously constipated. The next day, about one and one-half hours after dinner, he was seized with severe epigastric pain, followed by vomiting. At 5 p. m. he looked anx-

ious and ill, and the abdomen was tense and tympanitic, but there was no jaundice. The vomiting persisted. There was tenderness over the gall bladder and to a less degree over the stomach, but no enlargement of the liver or any indication of tumor. Temperature, 98°; pulse, 110.

The next day the temperature was 97° and pulse 120, the vomiting continuing; morphia was given. On the 30th the temperature was 96.8°, the pulse 125, small, weak and thready, respiration 36. The pain was easier. Urine scanty and dark. Operation on evening of the 30th, 54 hours after first attack of pain. Very extensive fat necrosis found in subcutaneous tissues and in omentum, mesentery, etc. Large quantity of brown, inoffensive fluid in peritoneum. Incision made into tissues around pancreas through meso-colon. Gall bladder drained through another incision, many gall stones removed. Free drainage of abdomen. After recovery from anesthetic, the vomiting persisted, and the pulse remained absent from the wrist up to death some hours later. At post-mortem examination a pint of bloody fluid in peritoneal cavity. Base of meso-colon filled with friable, offensive material, blackish brown in color, and here and there streaked with pus. Pancreas much swollen and weighed seventeen ounces. Hemorrhage infiltration in centre of body and another in tail, consistency very firm, with swelling of lobules. In the cystic duct were three gall stones, in the common duct four, and in the hepatic duct four. One gall stone three-eighths inch in length completely filled the ampulla of Vater, into which the duct of Wirsung opened one-third of an inch from the papilla. The duct of Wirsung did not contain bile.

Urine sent for examination by Dr. Cammidge showed crystals soluble in $\frac{1}{2}$ minute by the "A" reaction, and a few crystals by the "B" reaction soluble in the same time.

The following is Dr. R. Salusbury Trevor's report of examination of the pancreas:—

The gland is enlarged in all its diameters, the margins being rounded off and producing as a consequence a sausage-shaped contour. In the head, the middle of the body and the tail are chocolate-colored areas, which are fairly sharply differentiated from the surrounding parenchyma in which the normal lobulation is visible. The duct of Wirsung is not bile-stained. The portion of common bile duct attached to the head of the gland appears to be somewhat dilated. Around the gland, as well as in it, are numerous typical foci of fat necrosis.

Microscopic Examination. Sections have been prepared from the head, body and tail in most instances to include the chocolate colored areas as well as apparently normal parenchyma.

General Features. The dark-colored areas are due to necrosis of the parenchyma associated with hemorrhage, and in the sections from the head and tail are demarcated off from the neighboring gland acini by well-marked zones of inflammatory small-celled infiltration. In the tail section inflammatory reaction is absent, the

neecrosed areas merging gradually with the unaffected parenchyma. In the neecrosed areas the gland parenchyma is only barely recognizable by a faint alveolar structure, all gland elements having disappeared. The whole of these areas stain badly. In the neecrotic portions the smaller blood vessels are filled with more or less hyaline thrombi. Around the neecrotic areas in the head and body is a deposit of old blood pigment, and the appearances rather suggest that here the lesions are of older date than those in the tail. Inflammation is most marked in sections of the head. The remaining gland parenchyma is badly preserved owing to auto-digestion, and the head appears to show a slight grade of chronic interstitial pancreatitis of the interlobular type. Throughout the sections the Islands of Langerhans are found with difficulty, and, from comparisons with other sections, their number in the tail sections at all events appears to be diminished. Two of the Islands of Langerhans found in the tail sections are very large in size. The cells, however, are rather broken up, and into one of them hemorrhage has occurred. Minute changes are not recognizable owing to bad preservation of the tissue. The epithelium of Wirsung's duct shows distinct signs of a catarrhal change.

The condition is one of acute pancreatitis, with hemorrhage and necrosis (the acute form of hemorrhagic pancreatitis in Mayo Robson's classification).



Fig. 28. Fat Necrosis. "Transverse colon raised to show region of Pancreas."

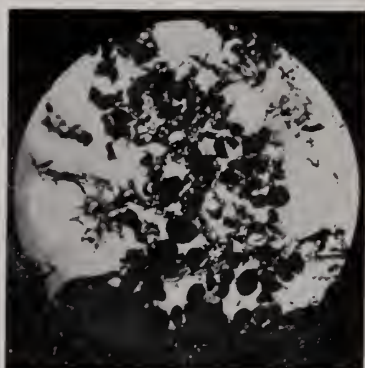


Fig. 29. Fat Necrosis from case of Acute Pancreatitis.

Owing to Dr. Fison's kindness, I am able to show photographs of the extensive fat necrosis and the microscopic appearance of the damaged pancreas. (Figs. 28-29).

SYMPTOMATOLOGY.

It is quite unnecessary for me to give the ordinary symptomatology of cholelithiasis or of pancreatitis in its various forms, as I have done that elsewhere, but it may reasonably be asked,—How can it be told when catarrhal or interstitial inflammation of the pancreas has supervened on cholelithiasis? So long as the

concretions remain in the gall bladder or cyst duct, it is extremely unlikely that the pancreas will participate in the cholecystitis, unless the pancreatic duct has become infected at the same time as the bile ducts.

As soon as gall stones pass into the common duct, even if they are not long detained in it, a catarrhal or even a paranchymatous pancreatitis may supervene, but if the gall stone remains in the pancreatic or inter-parietal portion of the common duct, setting up infective cholangitis, a pancreatitis is almost certain to occur.

The symptoms of pancreatic catarrh passing on to interstitial pancreatitis vary according to the cause; for instance, if it be due to gall stones, there will be a history of painful attacks in the right hypochondrium and epigastrium associated with jaundice, and possibly accompanied by fever of an intermittent type often resembling ague. Tenderness at the epigastrium, with some fulness above the umbilicus, will usually be noticed. Loss of flesh soon becomes marked, and if the pancreatic symptoms predominate, the pain will pass from the epigastrium round the left side or even to the renal and scapular regions. Fat and muscle fibres may be noticed in the motions as soon as the obstruction to Wirsung's duct is complete, and the pancreatic reaction will be found in the urine. If gall stones be not the cause, there may be merely an aching or painful attacks not at all pronounced, or the symptoms may come on painlessly, associated with dyspepsia and with slight jaundice soon becoming more marked. In such cases, if the swollen pancreas tightly embraces the common bile duct, the gall bladder may dilate, and give rise to a suspicion of cancer of the pancreas, which the rapid loss of flesh will tend to confirm. In the latter stages, pale or white and bulky motions may be passed, and a hemorrhagic tendency may be noticed. The liver is usually enlarged when the common bile duct is tightly gripped, and in several cases I have found cirrhosis of the liver, doubtless due to the long-continued stagnation of septic bile in the ducts. I have seen well-marked enlargement of the spleen on four occasions. In one patient the fever and the enlarged spleen gave rise to a suspicion of ague, the organisms of which were said to have been found in the blood, and on several occasions the repeated rigors have led to the diagnosis of malarial fever.

In 60 per cent. bile was present in the urine. In 40 per cent. calcium oxalate crystals were found. In 4 per cent. the oxalate crystals were associated with bile. In none of my cases was glycosuria found, though in two cases it developed several years

later. Opie reports having found glycosuria in one out of 22 cases. Glycosuria only occurs as a very late symptom. Death may occur from asthenia, due to long-continued jaundice, or from some inter-current disease, predisposed to by the loss of flesh and debility.

I would at once say that no single symptom alone will justify the diagnosis of pancreatic disease, but with such a number of symptoms and signs as those I have related, it is a mystery to me how the idea has gained so firm a hold that pancreatic diseases are, as a rule, undiagnosable. For instance, Opie only last year wrote: "Disease of the pancreas is rarely recognized during life," which is a reproach that I hope will in future have no justification. Although in any single case we may not have all the symptoms and signs that I have mentioned, yet in no case ought we to fail to find digestive or metabolic or physical signs if disease of the pancreas be present. Different diseases of the pancreas, it will be seen, as one would expect, present very various grouping of symptoms, but in nearly every, if not in every, case since Dr. Cammidge and I have been working together at the subject we have found most valuable help from the urinary pancreatic reaction. Although we must not yet say that this sign is absolutely pathognomonic, yet it is safe to make this assertion, that if the test be skillfully carried out, it affords most valuable, positive or negative evidence, when taken with other symptoms, in not only establishing the presence or absence of some disease of the pancreas, but in assisting in the differentiation of simple from malignant disease, a most important matter when surgical treatment is in question.

For the significance of the urinary test, and for the somewhat complicated and elaborate method of carrying it out, full details will be found in the Arris and Gale lecture published in the *Lancet* for March 14, 1904.

(To be Concluded.) 170

ACUTE LEPTOMENINGITIS.*

By JOHN W. BAILEY, M. D.,

SEATTLE, WASH.

Leptomeningitis, or meningitis as it is usually termed, is an inflammation of the pia-arachnoid membrane of the brain and cord. In inflammatory processes of the pia the arachnoid is always involved as well. It is known as cerebral, spinal or cerebro-spinal meningitis, according to the locality involved. The arteries of the pia penetrate the superficial layers of brain and cord substance to a greater or less distance, hence inflammation of the pia must also mean inflammation along the course of these vessels involving the contiguous tissues. It is well, therefore, to keep in mind the fact that leptomeningitis may be accompanied by a certain amount of encephalitis or myelitis. When the lesion is traumatic in its origin, fine distinctions between leptomeningitis and pachymeningitis are impossible as all the membranes are apt to be involved.

Meningitis occurs as a primary or secondary disease. As a primary disease it is due to two organisms, which are thought to gain entrance to the interior of the skull through the mucous membranes of the nose. These organisms are the diplococcus intracellularis and the pneumococcus. (1) When due to the diplococcus intracellularis, it is known as epidemic cerebro-spinal fever, malignant purpuric fever or spotted fever. (2) If due to the pneumococcus its occurrence is sporadic and (a) the infection may be of the meninges alone, or (b) be a part of a general pneumococcus infection.

Secondary meningitis is also of microbic origin following a lesion somewhere else in the body, caused by bacillus of tuberculosis, pneumococcus, various forms of staphylo- and streptococci and the organisms of the acute infectious diseases, of typhoid, diphtheria, influenza, gonorrhoea, etc. Infection of the meninges in secondary meningitis may take place by: (1) direct extension of disease from an injury to the scalp, cranial bones or other contiguous structures, as though fracture of the cribriform plate of the ethmoid or from extension of suppurative processes in the middle ear; by (2) embolism from any part of the body; (3) from microorganisms circulating in the blood; (4) and through the lymphatics.

Pathology: The inflammation of the meninges may be local-

*Read before the King County Medical Society, Seattle, Washington, January 16, 1905.

ized, or may be general. When not due to traumatism or purely local causes, those of the brain and cord are generally involved together. In children one finds the base more frequently the seat of the disease, as tubercular meningitis is much more common among them, while the convexity is said to be comparatively more frequently affected in adults, as they are more subject to traumatism.

Delafield and Prudden recognize two anatomic varieties of acute meningitis (and what is said in regard to brain lesions is applicable to the cord as well). (1) Cellular and (2) exudative. The general clinical symptoms of both kinds are the same. (1) In the cellular form the pia mater is congested and its surface dry and lustreless. There is an abundant production of cells somewhat resembling the cells which coat the surfaces of the membranes and fibres which make up the pia mater. The inflammation is one which results in a new formation of connective tissue. (2) The exudative form is characterized by the accumulation, chiefly in the meshes of the pia mater and along the walls of the blood vessels of variable quantities of serum, fibrin and pus. The diplococcus of epidemic meningitis is found, like the gonococcus, within the pus cells.

The following is a description of the lesions found in acute tubercular meningitis:

"This is particularly characterized by the formation in the pia mater of miliary tubercles, associated with more or less well marked exudative inflammation. The dura mater may be unchanged or its inner surface may be sprinkled with miliary tubercles. In children the ventricles are apt to be distended with turbid serum and the central canal of the spinal cord may also be dilated. Miliary tubercles in the choroid of the eye are present in a considerable proportion of cases. In almost all cases of tubercular meningitis there is tubercular inflammation in other parts of the body.

Owing to the frequency of the dilatation of the ventricles with serum in children, the disease is often called acute hydrocephalus."

Symptoms: Acute cerebro-spinal meningitis as a rule commences suddenly, often with a severe chill, headache, especially at the back of the neck, and a rise in temperature to 102° . Gastro-intestinal symptoms are often prominent, vomiting, projectile in type, and constipation or diarrhea. Constipation is more commonly met with. Photophobia is present, the patient burying his head under the bed clothes; the pupils are contracted. Strabismus is often seen. Spasms and twitchings of the muscles of the extremities are observed with retraction of the head and rigidity of the neck muscles.

The slightest jar, noise or movement produces excruciating pain. The pulse and temperature vary, but there is often a disturbance in the pulse temperature ratio, the pulse being slow or fast without a proportionate change in the temperature. Convulsions occasionally occur. Delirium soon supervenes and the patient is very restless and often maniacal. In epidemic cerebro-spinal meningitis petechiæ and purpuric spots are common, but in all forms the skin is very sensitive to any irritation, the tache cerebrale being frequently in evidence. Leucocytosis is to be expected in all forms of purulent meningitis no matter whether primary or secondary in origin, the count varying from 16,000 to 54,000 per cubic millimeter. The urine may be albuminous and may contain sugar, blood also may occur in malignant types of epidemic cases of the disease.

After the stage of delirium the patient becomes comatose, the pupils become unequal and the cornea hazy. The breathing is apt to be irregular and the pulse lacks force and volume. The temperature falls or sometimes rises to 106° - 107° and resolution takes place slowly as a rule. After all the higher functions of the brain are obliterated it is sometimes remarkable how long it is before death occurs. In cases that recover the convalescence is as a rule slow and one sees in idiot asylums quite a number of cases where the mind has been impaired by an attack of meningitis. Optic atrophy, deafness, interference with the function of other cranial nerves, etc., are common sequelæ in those who recover.

Prognosis: The prognosis of the disease is as a rule unfavorable either as to recovery or as to after usefulness of the patient. The percentage of recoveries in the epidemic form is 80 to 25 per cent.

Diagnosis: Headache, projectile vomiting, delirium which passes into coma, and a low pulse-rate or a pulse sensitive to external impressions are suggestive. When tubercular meningitis is suspected, search should be made for tubercular lesions elsewhere in the body. In cerebro-spinal meningitis other cases in the neighborhood will give one a clue to the true nature of the disease, as will the purpuric irruption. Tubercles may be found on the choroid in tubercular cases. Kernig's sign (pain on extension of the leg at the knee when the thigh is flexed at right angles to the abdomen) is said to be pathognomonic of meningitis. Lumbar puncture is of unquestionable value as a diagnostic measure. The examination of the fluid for chemical constituents, leucocytes, pus and bacteria is recognized as a safe and legitimate procedure. In suspected tubercular cases the fact that negative findings are of value in reaching a conclusion should

not be overlooked. It is well to remember that terminal meningitis due to septic germs often supervenes in cases of chronic Bright's disease and in all wasting diseases.

Treatment: In a disease that occasions so much suffering and is so often fatal our efforts should be directed primarily to making the patient as comfortable as possible. Absolute quiet should be enjoyed and the room darkened, as light is particularly disturbing. In the epidemic forms of the disease the patient should be isolated; and, as infection is supposed to take place through the mucous membranes of the nose or throat, for a prophylactic measure the use of some antiseptic spray in exposed individuals might prevent other infections. For the headache and delirium there is nothing better than the ice cap and spinal ice bag, and a blister will often do good, though one must be careful in the use of the latter. The actual cautery is still better. Osler recommends the tub bath with the temperature of the water at 98°. This procedure, however, might be difficult to carry out in private practice. Bromide of potassium and iodide of potassium are thought by some to be the sheet anchors in this disease. The bromide is given in the early and the iodide in the later stages. Morphin hypodermically may be used for the pain. A saline purge will often relieve some of the cerebral congestion, especially early in the disease. The combination of calomel and jalap, 10 grs. of each, will often do good. In traumatic cases the possibility of trephining and draining should be kept in mind. Likewise in cases due to suppuration of the middle ear.

The physician should watch for any retention of urine and be ready to relieve the symptom. Lumbar puncture has been employed as a therapeutic measure, and at least one case, in which tubercle bacilli were present in the cerebro-spinal fluid, recovered. Drainage of the brain cavity has also been attempted by certain surgeons for tubercular meningitis, with reports of several cases of recovery, the idea originating from the success in curing tubercular peritonitis by drainage of the peritoneum.

Herewith are reported a few cases that have come under the observation of the writer.

Case 1. Man; age 34. Laborer.

He arrived in Seattle from San Francisco by boat July 25th, 1903. There was no history of previous severe injury, illness or exposure. On July 26, at 10 p. m., he was seized with vomiting, intense headache, diarrhea and pain in the small of the back. At 9:30 a. m. July 27 I found him curled up in bed with his head under the bed clothes; the muscles of the neck were contracted

and his head drawn back when his body was extended. His tongue and lips were covered with sordes. His pupils were retracted and equal, responding sluggishly to light. Ophthalmic examination of the fundus showed a choked disc. There was involuntary twitching of the muscles of the arms. He was slightly delirious, but answered questions when spoken to sharply. The bladder was empty. The pulse was 100, the temperature 103.5° in the axilla, the respiration 20. The examination of the heart and lungs was negative. He was removed at once to the hospital. He had a restless, delirious night, and at 6 a. m. the next morning went into convulsions and became comatose. At 9:30 a. m. he lay on his back in a comatose condition, temperature 102 in the axilla, pulse 88, large and of low tension, respiration 40. His abdomen was hard and retracted. There was dulness on percussion in the left axilla and distant, blowing breathing over this area. The pupils were contracted and responded sluggishly to light. The head was retracted and there were tonic spasms of the muscles of the arms. The kneejerks were normal, Kernig's sign was present. The urine had to be drawn by catheter. It contained albumin. The chlorides were normal. The comatose condition ended in death, his pupils becoming unequal before he died.

Excluding a ruptured cerebral abscess or a traumatic lesion, this case is a good example of a sporadic primary meningitis, presumably due to the pneumococcus. Certainly the associated lobar pneumonia is very suggestive of such an infection. As he was a large, strong, healthy man previous to his illness, tubercular infection may be excluded. This case developed no purpuric eruption.

Case 2. Man; age about 30. Laborer.

This man had been ill for eight months previous to the time he came under my observation. He had been subject to chills and fever and had taken a good deal of quinin, but with no improvement of the symptoms. An examination showed him to be suffering from pulmonary tuberculosis. He was lost to observation for some time; when seen again he was delirious, his pulse 100, his temperature 101 degrees. He kept his head under the bed clothes to avoid the light. He voided his urine involuntarily, but his bowels were constipated. His tongue was coated and moist. There was involuntary twitching of the muscles of his extremities. The expansion of his right apex was diminished and the breath-sounds harsh. Two days following he recognized no one and was slightly delirious most of the time. Two days after this priapism developed. His pupils responded sluggishly to light, he was very drowsy and he lay with his mouth and eyes partly open. In the evening the pupils were unequal, but responding to the light reflex. He perspired freely. The arms were spastic and flexed at the elbow. The pulse was rapid and of small volume. He died the next morning.

There can be little question as to the diagnosis in this case being tubercular meningitis. The occurrence of priapism was rather an unusual symptom.

Case 3. Man; age 19. Miner.

While working underground a piece of coal fell from the roof, striking this man on the bridge of the nose. This occurred at two in the afternoon. There was no evidence of injury to the cranial bones. Three stitches were taken to close the wound in the soft tissues. The left nostril was packed with gauze. There was oozing of bloody serum from the nose. The next morning the right eye was closed from edema of the lids and there was chemosis of the conjunctiva of that eye. At 5 p. m. of that day he complained of intense headache in the frontal region and the edema was due to injury to the ophthalmic vein. Had the cavernose. His pulse was 84 and his temperature 102 degrees. At 8:30 he was very drowsy and his pupils responded sluggishly to light. His pulse was 72, temperature 103.4 degrees, large and soft, dicrotic at times. He was very delirious during the night; pulse 84, temperature 101.6°. The next morning at 8 his pupils were unequal, the left contracted. He roused when spoken to sharply. He died the same evening before midnight.

We had here to do with a fracture of the base communicating with the nose as evidenced by the oozing from that organ. The edema was due to injury to the ophthalmic vein. Had the cavernous sinus been involved, this symptom would have extended lower down on the face. The pulse-temperature relation is interesting, as is also the rapidity with which infection followed the injury. The diagnosis was in favor of meningitis from the fact of there being fever with no motor or sensory disturbances. Hemorrhage was probably present as well.

Case 3 illustrates very nicely the two clinical forms of traumatic meningitis, viz.: (2) The form where symptoms develop soon after injury, (2) and that form where symptoms develop at more or less remote period.

In the cases reported the following points are of interest:

I. The headache, fever, photophobia, gastro-intestinal and urinary disturbances occurring early in the disease.

II. The pulse-temperature relation; a low pulse whether the temperature rose or fell.

III. The spastic condition of the muscles of the extremities, also the fibrillary twitchings.

IV. Pupillary disturbances; contraction sluggish, response to light and later inequality of the pupils.

V. Restlessness and delirium, ending in coma.

VI. The fatal termination of the disease.

NORTHWEST MEDICINE

CLARENCE A. SMITH, A. B., M. D.
Editor in Chief.

JAMES B. EAGLESON, M. D.
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THE PORTLAND MEETING OF THE A. M. A.

We wish to keep before our readers this Portland meeting of next July. It is probable only a small proportion of the profession of the Northwest is accustomed to attend the Association meetings so that the benefits to be derived therefrom are not fully appreciated. At no other time can so many of the noted men of our ranks be met and heard. This is in itself an education and thereafter their writings will be presented with new power and meaning. If a physician once experiences the pleasure of attending this great gathering of fellow practitioners he will wish to enjoy the same with as much regularity as possible in the future. Hence the reason why every one should aim to avail himself of this opportunity. Indications are for a large attendance from the East. The Portland preparations are such that success is assured for all details of the meetings. It will be a cause for regret to every physician who is unable to be present.

MEMBERSHIP IN THE A. M. A.

This is a fitting occasion to call attention to the small representation of the State of Washington in the National organization. It is to be remembered that membership is dependant on a certificate of good standing in one's county society. If this state is to present an adequate membership at the Portland meeting the county societies will need to gather in the available material during the next few months. In this connection it is well to note that the by-laws of the State Association requires each county secretary to report to the state secretary, not later than the first of May,

the names of all members in good standing for enrollment as members of the State Association. This standing depends on payment of annual dues to the county society which includes that for the State Association. As the time limit is short we urge those who have not done so to attend to this important duty. Then, having squared our relations to the local organizations, let us affiliate *en masse* with the National Association.

WORTHY PROPRIETARY PREPARATIONS.

One of the most popular discussions of the medical journals of the day pertains to the use of proprietary preparations. One extremist condemns them in toto as being in the class of patent medicines and that their use is a confession of ignorance of prescription writing and pharmacy; others apparently adopt them as they are presented, as an easy method of ordering treatment, accepting all claims put forth as to their efficiency; most practitioners prescribe a certain number but are in a state of doubt as to which are reliable and trustworthy. These uncertainties are now to be dissolved by action of the Council on Pharmacy and Chemistry of the A. M. A., whose personnel includes chemists and pharmacists of national note. As explained at length by *The Journal of the A. M. A.*, "It is the immediate purpose of the Council to examine into the composition and status of the various medicinal preparations that are offered to physicians, and which are not included in the U. S. Pharmacopeia or in other standard text-books or formularies. Preparations which conform to the standard established by the ten rules governing the matter will be incorporated in 'New and Non-Official Remedies', a book to be published by *The Journal of the A. M. A.*" The profession will await the appearance of this publication with much interest. The mooted question of ethical and unethical preparations should then be relegated to the past. For whatever passes muster at the hands of the men composing this Council should be worthy of unquestioned acceptance.

WASHINGTON'S NEW MEDICAL LAWS.

From a medical standpoint the recent session of the Legislature is noticeable for what it failed to accomplish rather than for its acts passed. Of all the bills proposed and discussed only three ran the gauntlet of the wise men. That prohibiting the use of formaldehyde in milk, and the amendment to the Medical Practice Act which raises the fees to \$25, eliminates reciprocity and requires applicants to have studied four years, passed both houses and were

signed by the Governor as introduced. The third, a bill to prohibit the advertising of the cure of sexual diseases, was intended to suppress the flagrant flaunting, before the eyes of men and women, boys and girls, the familiar professions to cure gonorrhea, syphilis, lost manhood, etc. When the bill emerged from the House shuffle the word "sexual" had been changed to "venereal," so that now advertising to cure venereal diseases is prohibited in this state. Whether this will accomplish anything intended by the act is beyond our ken. Certainly the prime purpose has been defeated. It is interesting to note that this result followed the behest of the patent medicine advertisers whose nostrums touching uterine disorders thus fell under the ban. They worked on the legislators through the newspapers of the state, all of which, with the exception of the *Seattle Post-Intelligencer*, united thus to emasculate the bill and produce a caricature of that intended.

The osteopathic fiasco has been useful as a means of agitation and instruction. Everything considered, nobody can deeply regret the failure of passage of all bills of this nature that were introduced. The lesson to be drawn by the profession from this year's experience is the necessity of organization and of well laid plans for legislative action. The State Association should determine upon desirable legislation and, by having the same properly fathered, there would be a reasonable prospect of securing its passage. This will doubtless be a subject of future deliberation.

PRIZES OFFERED BY NORTHWEST MEDICINE.

We wish to keep before our readers the prizes of \$50 and \$25 which we have offered to physicians of the Pacific Coast for the best papers on original work presented to us on or before the first of next September. The announcement of the names of the successful competitors will be made at the fall meeting of the Washington State Association.

TO OUR READERS AND CONTRIBUTORS.

All material for publication must be received by the twentieth of the month preceding publication. Articles will be illustrated by half-tones or etchings when accompanied by photographs or drawings for the same. Reprints of contributed articles can be obtained at the cost of publication, from the Metropolitan Press, publishers of the journal. A limited number of additional copies of the journal will be supplied to contributors, if a request is made for them.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. H. Lyons, M. D.; Secretary, C. H. Thomson, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of, February 6, President Lyons being in the chair. Forty-eight members and visitors were present.

The following were elected to membership: J. W. Thomas, C. W. Davis, L. O. Fiset and Fredrica Phillips.

On motion of Dr. Carroll, the President was instructed to appoint a committee to investigate and report as to whether the society should provide entertainment for visitors who will be in the city following the Portland meeting of the A. M. A.

PATHOLOGIC SPECIMENS.

Chronic Endocarditis.—J. W. Bailey exhibited the heart of a man of 58 years who was brought into the hospital unconscious. He had no pulse at the left wrist but it was strong at the right. He died without gaining consciousness. The autopsy showed the valves were normal but the aorta presented large calcareous plaques. A portion of the basilar artery was exhibited that showed a small aneurism.

The next specimen was of a very large heart. The man entered the hospital with compensation almost gone. He had a great variety of large murmurs and a distinct thrill. The heart was very large and hypertrophied. Vegetations the size of marbles were on the mitral valves.

Cancer of the Sigmoid.—This specimen was from a man who entered the hospital with obstruction of the bowels. He had had no passage for some time. He was in a very critical condition and, during the ensuing operation, died on the table. The complete obstruction was found about two feet from the anus, an annular growth that filled the lumen of the gut. Microscopically it proved to be carcinoma. No metastases were found and no glandular involvement.

Cancer of Stomach.—This was a specimen from a patient who entered the hospital about three months ago. Cancer of stomach was diagnosed. He had not lost much in weight. No tumor was palpable. He gradually lost in strength and, before death, had fecal vomiting. The growth involved nearly all the stomach wall, leaving only a small area anteriorly without it. There was no intestinal involvement and only a few small liver nodules.

CLINICAL CASE.

Tubal Pregnancy.—J. R. Booth related this case and presented the specimen. The woman called on the doctor a year and a half ago on account of dysmenorrhea. About a month ago he was called on account of sudden severe pain in right side and general abdominal tenderness. A probable diagnosis of ectopic gestation was made. After curetting the uterus the abdomen was opened and two pints of blood and clots removed. There was a sudden increase of pulse from 120 to 150 per minute. The tube had ruptured at the middle. It was tied off and the ovary approximated to the uterus.

J. B. Eagleson advocated operation as soon as a diagnosis is made since the fetus always dies and 70 per cent. of the mothers. He described an operation some years ago on a woman who went to term with the child in the abdomen and the placenta attached to the under side of the mesentery. She made a good recovery.

E. E. Heg said that temperature is uncommon in these cases and described the case of a woman who was supposed to suffer from pyosalpinx. A vaginal incision showed placental tissue. An abdominal operation then removed the fetus and placenta. She exhibited a temperature that was deceptive and obscured the diagnosis.

Drs. Paschall, Clark and Edwards continued the discussion.

PAPER.

Conservatism in the Treatment of Children.—F. P. Gardner read this paper. He reviewed certain irrational methods of caring for sick children and advised abandoning them. He mentioned the necessity of fresh air, light clothing and water. Nauseating syrups for pulmonary diseases were condemned. We are apt to give the children too much medicine. In many cases they need little or none since most of their ailments are self limited.

The paper was discussed by Drs. Holmes, Smith, Harris, Bailey and Lazelle.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of March 20, President Lyons being in the chair. Forty-eight members and visitors were present.

Drs. J. W. Amesse and C. L. Elliott were elected to membership.

On motion of Dr. Hastings the President appointed the following committee to wait on the Board of Regents of the State University and endeavor to convince them of the undesirability of adding a course of medical instruction to that institution: W. C. Hastings, E. E. Heg, H. M. Read, J. B. Eagleson and P. W. Willis.

Dr. Harris offered the following amendment to the by-laws, Chapter 1, Section 1: Members in good standing in other County or State Societies, recognized by the American Medical Association, may become members of this Society on presentation of certificates of membership in former County or State Society.

Myo-fibroma of the Uterus.—J. E. Harris presented this specimen, the size of an orange, obtained by operation from the anterior lip of the cervix. It was of seven years' standing. When first discovered it was the size of a hazel nut and used to bleed freely at times. After increasing in size and being forced out of the uterus it ceased to bleed. The patient made an excellent recovery.

Ovarian Multilocular Papillomatous Cyst.—Dr. Harris presented this specimen, obtained from operation. The case was of six months' standing, the tumor being the size of a full term pregnancy. It had been tapped for ascites. It held 16 quarts of fluid. Three weeks later intestinal obstruction appeared. Operation disclosed the small intestines a mass of dense adhesions and extensive peritonitis. The patient died four days from onset of symptoms. Autopsy showed a

semi-solid tumor the size of an orange at the site of the original incision in the abdominal wall. Microscopic examination of specimens from the interior of the cyst wall showed malignant and myxomatous degeneration.

Malignant Papilloma.—Dr. Harris exhibited microscopic sections from a tumor of a patient who died three years after an operation for removal of a papillomatous tumor of the left ovary. Subsequently she had more or less pain. For several months the pelvis had been filled with a hard tumor that had for three months protruded the size of a lemon through the abdominal scar. A week before death symptoms of intestinal obstruction and peritonitis appeared. The sections exhibited were of carcinoma.

Obstruction of Bowels Due to a Meckel's Diverticulum.—Grant Calhoun presented this specimen of a Meckel's diverticulum. It was from a boy of 16 who presented symptoms of colic for several days with varying intensity. At last abundant cathartics failed to move his bowels, pulse and temperature rose and obstruction was diagnosed. Operation revealed this diverticulum adherent to a loop of intestine in such a manner as to constrict its caliber to that of a lead pencil.

CLINICAL CASE.

Fibrinous Pleurisy.—Dr. Stillson gave the history of a man of 30 who, while in Alaska, one year ago, felt pain in the left side when lifting. Later this side enlarged. He came to Seattle and was treated by an osteopath for dislocated nerves. The doctor saw him a week ago and found the whole left side swollen below the nipple. Physical signs were flatness, increased vocal fremitus, respiratory sounds somewhat tubular, no cough nor expectoration. X-ray examination showed, while standing, a triangular shadow with apex at the nipple. On lying down cloudiness was more diffuse and extensive. Diagnosis was fibrinous pleurisy with probable effusion.

PAPER.

Auto-intoxication as a Factor in Mental Diseases.—This paper was read by Dr. D. A. Nicholson and proved of great interest to the Society.

WHATCOM COUNTY MEDICAL SOCIETY.

President, F. J. VanKirk, M. D.; Secretary, W. N. Hunt, M. D.

The Whatcom County Medical Society met in regular session March 13, with President Van Kirk in the chair.

The committee on inquiry reported having waited on the prosecuting attorney regarding unlicensed practitioners, and that he had agreed to notify all such to qualify under the law or cease practice.

Applications for membership were received from Drs. F. A. Rice, C. E. Martin and O. E. Beebe, duly recommended by the committee on admission and ethics. A ballot being taken they were elected as members of the society.

PAPER.

Bronchiectasis.—Dr. L. R. Markley presented a patient suffering from this condition following an attack of measles, and read a paper giving a clinical history of the case, together with a general outline of the disease as is usually occurs.

The members were given an opportunity to examine the patient and several took part in the discussion which followed.

Adjourned to meet March 10.

RECENT PROGRESS IN MEDICINE AND SURGERY.

GENITO-URINARY DISEASES.

Edited by

G. S. Peterkin, M. D.; G. W. Hawley, M. D.

A Report of Six Cases of Calculus in the Pelvice Portion of the Ureter.—By George Emerson, M. D., *Cleveland Medical Journal*, November, 1904.

He gives as a reason for the paper that the detection and treatment of calculus in this situation had received little attention from surgeons, and therefore is not well understood by the profession at large; that the number of cases reported as yet is comparatively small and, in order that sufficient data may be accumulated to admit of ascertaining and classifying more definitely the symptoms and indications for treatment, all such cases should be reported.

He states that calculus may exist in the pelvis of the kidney, or any portion of the ureter without giving rise to symptoms during the life of the individual; that calculus of the kidney may give rise to pain in any portion of the urinary tract, or indeed in some remote region wholly removed from it.

Stones located in the ureter, between the kidney and pelvic brim, are easily accessible for surgical treatment, but those below the brim are much more difficult, so difficult in fact, that up to 1902, only 18 cases had been reported in the male. A majority of calculi impacted in the portion of the ureter below the brim of the pelvis are at the vesical extremity and when so situated removal should be through the bladder. This can be accomplished through a suprapubic opening, by the perineal route, through a dilated urethra in the female, or as practiced by Young, by means of a ureteral catheter, under guidance of the eye, with the cystoscope.

When the calculi lie between the pelvic brim and the bladder wall, the following routes have been suggested and practised: The perineal route described by Fenwick; the rectal route practised in a single case by Ceci; the posterior or pararectal route, either through a Kraske flap or, as suggested by Morris, by means of an incision parallel with the sacral spines and two inches from the median line; and the extraperitoneal or iliac route. The transperitoneal and rectal routes are discarded as being too dangerous.

Of the six cases reported, two were not operated upon, but advised to take a course of Poland water, with apparently good results. The others were operated upon and possess various points of interest, special reliance being placed upon the X-ray in the diagnosis. As stated in this article, different methods are pursued in each case as a rule, no definite line of procedure being carried out in all cases because of lack of knowledge at the present time. The real value of the paper, outside the facts stated, can only be appreciated by reading each individual case.

PETERKIN.

Radical Cure of Varicocele.—By Lieut.-Col. Augustin Aguirre, of the Mexican Army. *Journ. Ass'n of Military Surgs. of the U. S.*, Jan., 1905.

The writer describes an operation for the radical cure of varicocele, employed for some years by Casimiro Preciado, ex-Surgeon Major of the Mexican Army. It consists in employing at the same time transverse resection of the scrotum and excision of the bundle of varicose veins. Indications for the radical treatment are enumerated as follows:

(1) When the varicocele is very far advanced, because then the vitality of the testicle is seriously involved; (2) when it is painful and causes the patient great disturbance; (3) when it causes atrophy of the testicle and impairs its functions by weakening the genital faculty; (4) when it causes serious nervous perturbation, such as neurasthenia, psychic disorders, tendency to suicide, etc.

The operation is performed under general or local anesthesia, and may be divided into four stages.

First stage: The tests are pushed towards the inguinal canals and the part of the scrotum to be removed is seized with curved clamp forceps. The cut is made with a bistoury, including all the tissues covering the testicle. The forceps are then removed and we proceed to the second stage. This demands complete hemostasis, even the smallest blood vessels being tied, in some instances as many as 60 ligatures being applied.

The third stage consists of dissection and ligation of varicose veins. On raising the upper flap of the wound, the testes and cords are entirely uncovered so that the varicose veins can be, distinctly seen. The veins are ligated with a double thread of catgut at the two ends, the intervening portion being excised.

In the fourth and last stage the wound is sutured by planes, the deepest with catgut and superficial ones with Florentine horsehair. The wound is then dressed aseptically.

The advantages of this procedure are: (1) It forms a real and natural suspensory for the testes and impedes a recurrence of the disease. (2) One incision suffices for double varicocele, cyst of the cords, gumma of tests, etc., if these complications are present. (3) The free exposure of the vein, testes and cord lying in the normal position, lessens the possibility of wounding or tightening in the ligatures the spermatic artery or the vas deferens. Sixty cases were reported, all healed by first intention and the final results were invariably satisfactory. In no case up to date has the disease returned.

PETERKIN.

Gonorrheal Salpingitis in a Child Aged Six; Removal of Tubes.—By Leonard, F. R. C. S. The Brit. Journ. of Children's Dis., Oct., 1904.

This article is practically a clinical report. The child was operated upon, a medium incision of the abdomen being made and the two tubes removed. The ovaries were left. The pelvis was sponged out and a rubber drainage-tube inserted. The patient made an uneventful recovery and went home 22 days after the operation. The vaginal discharge did not cease, and 47 days later the patient was again anesthetized, the os dilated and uterus curetted. Within a week the discharge had ceased and some months later the child was reported to be in perfect health.

The following are the conclusions drawn by Dr. Bidwell: Gonorrheal salpingitis is very rare at such an early age and the course of the disease appears to be rather more acute than in adults. Operation in such a case should not be done until all hope of cure by other means has been abandoned, since the functional result may be sterilization. The ovaries were left in the hope of avoiding any arrest in the development of the child. It is interesting to note that the discharge did not stop after salpingectomy, but persisted until the uteruses of vaginal discharge which are proved to be gonorrheal, the patient should be anesthetized, and if it is found that the discharge is coming from the uterus, the os should be dilated and the uterus curetted; in this way any extension to the tubes would be avoided.

PETERKIN.

Gonorrheal Inflammation of the Uterine Appendages in a Girl of Three and One-half Years, detected by Bimanual Examination; Spontaneous Recovery.—By Geo. Carpenter, M. D. *The Brit. Journ. of Children's Dis.* Oct., 1904.

In this case, microscopic examination showed numerous gonococci. Bimanual examination was made per rectum and the uterine appendages found involved. The case was under treatment from November 3, 1898, to May of the following year. Treatment is not given. The case was reported to illustrate the value of bimanual examinations in internal genitalia in young children. The doctor had long advocated the method, the technic of which he describes in *Pediatrics*, vol. 1, pp. 491-500, "On the Value of Rectal Exploration as an Aid to Diagnosis in Diseases of Children." Further value is attached to the case in that it illustrates that these conditions, in some instances at least, tend to spontaneous recovery, and that without such examinations cases are likely to be passed by.

It affords interest to speculate on the effect such complications are likely to produce as regards future child-bearing, sterility being the possible result in some instances. He states that Marx is of the opinion that these infantile inflammations are apt to commence afresh at puberty, and often are the real cause of pelvic inflammations of newly-married women hitherto frequently credited to the husband.

PETERKIN.

Concerning Early Operation for Tuberculosis of the Kidneys.—By Kummel, *American Journal of Urology*, January, 1905.

Kummel discusses renal tuberculosis from a study of forty-eight operative cases. He expresses the belief that infection takes place via the circulation from a focus pre-existing in other parts of the body. In this regard reference is made to the animal experimentation of Baumgarten in which evidence was given that all tuberculous infections follow the course of the glandular secretions and that extension is impossible. The conclusion is made that in tuberculosis of the urinary tract the primary seat of disease is in the kidney and that infection of the ureter and bladder is the result of infection from above. Kummel states that tuberculosis of the bladder should never be operatively treated but the source, the infected kidney, removed.

Vesical tuberculosis usually rapidly vanishes after nephrectomy.

The necessity for early diagnosis is urged. Every cystitis, not due to gonococcus or infection from without, should be held suspicious of tuberculosis and be subject to careful observation.

In forty-eight operated upon, 32 are living; one case 15 years after operation; 9 cases after 5 years; 14 after 2 years; and 8 have been operated during the year.

HAWLEY.

Can a Positive Diagnosis of Gonorrhea be Made without Resorting to Cultures?—Editorial, American Journal of Urology, January, 1905.

Bacteriology has made notable advance in the study of the gonococcus during the last few years, and it is significant that this organism has been found in almost every portion of the body.

In this brief article occurs an interesting review of the recent work in this direction, particularly concerning its identification. After mentioning the two most accurate methods of staining—Gram's method, first advocated by Roux in 1886 and Steinschneider's modification of an "after-stain" with Bismarck brown—reports are introduced to show that cases are to be met with which fail for these tests. The number of such cases is, however, happily small, so that in the great majority of cases a simple coloring method is sufficient. In doubtful cases Gram's method and the after coloring by Bismarck brown, as given by Steinschneider, are recommended, but the value of these methods depends very largely upon the pathologic training of the observer. In a few rare cases resort to cultures is imperative for a positive diagnosis. The percentage of such cases is estimated at 3.35 per cent.

HAWLEY.

SURGERY.

Edited by J. B. Eagleson, M. D.; E. E. Heg, M. D.

Gallbladder Surgery. By A. J. Ochsner, Ann. of Surg., Feb. 1905.

In discussing a paper with this title, by Dr. D. A. Steele, Oschner says that the vast majority of all patients suffering from gallstones, cholecystitis or diseases of the ducts could have been operated upon safely and the late serious conditions prevented. Cholecystectomy and choledochotomy would not have to be performed if the gallstones were removed early and the gall bladder drained. He believes that these facts should be impressed on the internist and that the surgeon should always have him present at operations on such cases when possible. Many cases diagnosed as stomach troubles are due to presence of gallstones.

EAGLESON.

Attitude of the Medical Profession Toward the Social Evil. By Howard A. Kelly, M. D., Journ. A. M. A., Mar. 4.

He makes a plea for more active personal endeavor on the part of the profession and of the public for good morals. Indifference, he says, has been the attitude of the past, and its result has been a riot of sin and disease, debauchery of police service, and corruption of the whole body politic. The alternative of government control, advocated by some, is a sanctioning of vice and an ignoring of the principles of morality which are the basis of all positive law. Experience, Kelly says, does not show that the legalization of vice is any step toward its abolishment; the effects of legalization in the degradation of the med-

ical profession are deplorable. What is needed, he believes, is a moral crusade sustained by an intense sense of personal responsibility in this matter.

Intermittent Exophthalmos. By W. C. Posey M. D. Journ A. M. A., Feb. 18, 1905.

The doctor reports an instance of this rare affection, of which he is able to collect only 39 cases in the literature. He thinks that it is probably more frequent than supposed. Its characteristic symptom is the pushing or falling forward of the eyeball when in a dependent position or when the return of blood from the head is interfered with by holding the breath, pressure on the jugulars, coughing, sneezing, tight collars, etc. The proptosis is usually unaccompanied by pain and the patient may be unconscious of it. Vision may be unaffected or permanently impaired or lost. Generally it is only impaired during the protrusion. The diagnosis is easy and the prognosis is generally good. The patient should avoid excessive strain and anything that causes the eye to proptose. Ordinarily operation should be advised against, though where hemorrhage has occurred and vision is threatened Hitschmann's counsel to lay bare and resect the affected veins may perhaps be followed, Kroehlein's operation being resorted to if necessary.

BOOK REVIEWS.

Edited by

KENELM WINSLOW, M. D.

Practical Pediatrics. A Manual of the Medical and Surgical Diseases of Infancy and Childhood. By Dr. E. Graetzer, Editor of the "Centralblatt für Kinderheilkunde" and the "Excerpta Medica." Authorized translation, with numerous Additions and Notes, by Herman B. Sheffield, M. D., Instructor in Diseases of Children, and Attending Pediatricist (O.P.D.) New York Post-Graduate Medical School and Hospital; Visiting Pediatricist to the Metropolitan Hospital and Dispensary, etc. Pages XII-544. Crown Octavo. Flexible Cloth, Round Corners. Price, \$3.00 net. F. A. Davis Company, publishers, 1914-16 Cherry Street, Philadelphia.

This is a book that we can heartily commend. While it does not embrace the history, or even the pathologic anatomy of infantile diseases, it does treat most satisfactorily and thoroughly of the symptomatology and treatment of the whole range of children's disorders—medical and surgical—including those of the ear, eye, nervous system, skin, bones and muscles, nose and throat, in small compass and with the latest knowledge. Thus a page is given to colicystitis. Instead of rehearsing threadbare descriptions of the typical course of diseases, he has laid especial emphasis upon the numerous deviations from the type which so often baffle the skill of the general practitioner. The sections on the use of cold, heat, electricity, massage, climatology, and more particularly palatable prescribing in children's diseases, are worthy of much praise. There is a chapter devoted to all the drugs—including the latest additions—arranged in alphabetical order, which are commonly used by pediat-

rists. The diseases in which these are most appropriate, the dose suited to the age, and—what is still more valuable—the preferable mode of administration of each in its most palatable form, constitutes perhaps one of the most valuable sections of the book. The type is of good size and clear, the paper and binding good, and the volume is of very convenient form and thickness.

WINSLOW.

The Ophthalmic Year Book.—A Digest of the Literature of Ophthalmology, with Index of Publications for the year 1903. By Edward Jackson, A. M., M. D., Emeritus Professor of Diseases of the Eye in the Philadelphia Polyclinic, Ophthalmologist to the Denver County Hospital, etc., pp 243, with forty-five illustrations. Published by The Herick Book & Stationery Company, Denver, Col., 1904.

The Ophthalmic Year Book presents, in a concise and readable form, the progress of Ophthalmology during the last year. It has culled the useful and important from the unimportant, and has practically given a book which contains much valuable new matter, sufficient in detail to retain its usefulness, but not too padded to be cumbersome.

Under the subject Ophthalmia Neonatorum there are reported from Europe twenty cases in which the disease is complicated with arthritis. In nearly all of these the gonococcus was demonstrated.

In treatment the author cautions against the displacement of silver nitrate by the newer and less irritating silver salts, without sufficient clinical evidence to substantiate their superiority. There is no doubt that, in many case, the substitution of argyrol for silver nitrate would prove disappointing. The operation of transplantation of the cornea does not appear to show any advancement. "It is scarcely to be thought of as a method of improving vision, but it may, in some cases, improve the condition of a sightless globe and do away with the necessity for enucleation." The book also contains a list of the more important original communications appearing during the year, with a list of the principal recent works on ophthalmology, which places at once within easy reach the complete subject for the year.

PERRY.

Studies in the Psychology of Sex—Sexual Selection in Man. 1. Touch. 2 Smell. 3, Hearing. 4, Vision. By Havelock Ellis. 6 $\frac{3}{4}$ x 8 $\frac{7}{8}$ inches. Pages XII-270. Extra Cloth, \$2.00 net. Sold only by subscription to Physicians, Lawyers, and Scientists. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

The present book continues the series, the previous volume of which was reviewed in these columns. Ellis states that Love is aroused by Beauty but regards beauty as simply a name for a complexus of stimuli which most adequately arouses love. These stimuli—touch, smell, hearing and vision, and the greatest of these is vision—he proceeds to analyze from an evolutionary and psychologic standpoint. The various relations of odors or perfumes, and especially musk, in arousing sexual emotions is recited at length. In reference to sound, music is most important as a sexual stimulant. The influence of visual stimuli of all kinds is given chief prominence, in-

cluding the various sorts of physical types which have and do still produce the strongest amatory results in the opposite sex; the various physical features which go to make up beauty from the author's unesthetic definition of the term, which in his view consists of various points which incite the sexual emotions. Mr. Ellis sees fit, in an appendix, to continue a list of disgustingly-detailed, individual histories of sexual life and acts—natural and unnatural—under the head of normal sexual development. Take the work of the author all in all, we can not deny its scientific method and many of its inferences, but how one can live immersed, soaked and saturated in such matters for the great period required for such an exhaustive study—as the writer contemplates—without becoming seized with a deadly loathing of the whole subject and a desire for a long breath of fresh air and a convenient fire for the reception of the work—it is impossible for the reviewer to understand.

WINSLOW.

A Compend of Diseases of the Eye and Refraction. By Gould & Pyle. P. Blakiston's Son & Co., publishers, 1012 Walnut St., Philadelphia, 1904. Price \$1.00.

This book, while published in a "Quiz Compend" series, is not a list of questions and answers but is a text book of some two hundred and seventy pages. As intended, it is especially suitable for the student; there is space given to the necessary information in regard to the anatomy of the eye, and enough of the principles of optics is given to enable the student to get a clear conception of the theory of refraction. There are chapters concerning the routine and methods of an "eye examination" and descriptions given of the errors of refraction and their proper correction. In the second part of the work the numerous eye diseases are well classified and very systematically described, the object being to simplify the matter as much as possible. There is an excellent chapter on Local Ocular Therapeutics and a glossary of scientific terms which a beginner will find a great convenience. The work is well illustrated, a number of the illustrations being in colors. The book is light and of small size, which makes it convenient for study or reference. In a small space it contains as much information as many of the larger and more pretentious works on ophthalmology.

BENTLEY.

Eye, Ear, Nose and Throat Nursing. By A. Edward Davis, A. M., M. D., Professor of Diseases of the Eye in the New York Post-Graduate Medical School and Hospital, and Beaman Douglass, M. D., Professor of Diseases of the Nose and Throat in the New York Post-Graduate Medical School and Hospital. With 32 illustrations. Pages XVI-318. F. A. Davis Company, publishers, 1914-16 Cherry Street, Philadelphia.

Though written especially for nurses, this small book will be found to contain many practical points for the physician. The work is decidedly practical; the author points out the best and easiest ways of doing the many little things which are among a nurse's tasks, as well as entering into detail in regard to the greater and more important duties. Several chapters have been devoted to some indispensable preliminary information. There are chapters on the anatomy and

physiology of the special organs, on the character of the commoner drugs which the specialist uses and a brief description of the commoner diseases and their treatment. Dr. Davis gives the following as the two most important commandments for the ophthalmic nurse:

1. "Thou shalt be altogether clean and gentle when caring for the eye."
2. "Thou shalt not apply poultices to the eye."

BENTLEY.

A Compend of the Practice of Medicine. By Dan'l E. Hughes, M. D. Seventh Revised Edition, edited, revised and in parts rewritten by Samuel Horton Brown, M. D. Including a section on Mental Diseases and a very complete section on Skin Diseases. 779 pp. 5½x7½ in. Flexible leather cover, gilt edges, \$2.50. P. Blakiston's Son & Co., Philadelphia.

This is a very well known and popular book for students' use and stands midway between the ordinary book of essentials or quiz compend, and the standard textbooks on practice. For a book of the kind it is admirably done and the fact that it has reached its seventh edition shows that it needs little introduction to medical students for whose service it is particularly intended.

WINSLOW.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR FEB., 1905.

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Adams	0	0	1	1	0	0	0	0
Chehalis	0	0	0	0	4	0	0	0
Chelan	0	0	0	0	0	0	0	0
Douglas	0	0	5	0	0	0	0	0
Jefferson	0	0	0	0	0	0	2	1
King	0	0	8	0	3	0	1	0
Kitsap	0	0	0	0	2	0	0	0
Kittitas	0	0	2	0	13	1	0	0
Lincoln	0	0	3	0	2	1	0	0
Snohomish	0	0	3	0	1	0	1	1
Snohomish	0	0	8	0	1	0	1	1
Spokane	0	0	1	0	1	0	0	0
Thurston	0	0	1	0	1	0	0	0
Walla Walla	1	0	0	0	0	0	0	0
Yakima	0	0	0	0	2	0	0	0
Bellingham (city)	0	0	4	0	0	0	4	1
Seattle (city)	0	0	12	0	15	2	4	2
Spokane (city)	0	0	14	0	16	1	0	0
Tacoma (city)	0	0	10	0	7	2	0	0
Total	1	0	69	1	68	7	13	5
February, 1904.....	46	0	167	4	60	11	44	13
Total, 1905	3	0	151	3	174	16	39	11
Total same period 1904..	92	1	311	10	202	29	130	29

N. B.—No new cases of smallpox originated in Washington during February. The one case reported from Walla Walla county came from Missouri.

ELMER E. HEG, Secretary.

NORTHWEST MEDICINE

May, 1905.

ORIGINAL CONTRIBUTIONS.

THE ROLE PLAYED BY THE NOSE AND THE MOUTH IN THE ETIOLOGY OF TUBERCULOSIS.*

By HAMILTON STILLSON, M. D.

SEATTLE, WASH.

For simplification let us divide our subject into

1. Mechanical.
2. Bacteriologic Considerations.

MECHANICAL.

The principal office of the nose is to afford an entrance for air to the lungs and to prepare that air for respiration. The mouth is inadequate for respiration (Bosworth). If, then, any mechanical obstruction exists in the nose, respiration will be interfered with and a train of deleterious symptoms follow. Numerous obstructions are possible. Often slight obstructions lead to mouth breathing. Whether slight or severe this mouth breathing has its injurious effects, even to the mouth.

Some of the first mechanical effects of long continued labored breathing is to increase the amount of residual air in the lungs. By the untoward exertion of expiration there is induced an emphysema of the lungs, particularly in the apices. This emphysema is one of the earliest signs of tuberculosis in the pretubercular stage and is beautifully seen in the fluoroscope and in the skiagraph.

This increase of residual air leads to stasis, and that to poor aeration of the air cells, and that to an accumulation of carbon dioxide and the failure to impart oxygen to the red blood cells.

Besides, too, hypertrophies and hyperplasias in the nose render it impossible for the nose to prepare the air for respiration. About ten ounces of moisture are given to the inspired air by the nose in twenty-four hours in normal respiration (Bosworth). If the nose be unable to impart this moisture, or even a considerable

*Read before the Washington State Medical Association, Seattle, Wash., July 12-14, 1904.

portion of it, the air inspired will deprive the mucous membranes of the lungs of it, thus rendering the air cells incapable of performing their function. This is of special importance in patients predisposed to tuberculosis. For in them perhaps the greatest element in that predisposition is a tendency to dryness and sclerosis of the skin and mucous membranes.

The nose has also to do with the warming of the inspired air. In ordinary room air, and with ordinary and normal respiration, the nose warms the air to pretty nearly normal bodily temperature. But in nasal obstruction the cold air untempered impinges against the back wall of the pharynx. A hyperemia follows, and chronic hyperemia, according to the testimony of Shirley, is highly conducive to tuberculosis.

As a further important consideration, let us mention the mechanical sifting of the inspired air through the cilia and in the vestibule of the nose, and the action of the fibrillae in their efforts at expulsion of foreign particles from the nose. It is to be remembered that lining the vestibule is a squamous epithelium little different from the skin and that nature invites the lodgement of foreign particles there rather than deeper within the air tract. In the vestibule germs will be comparatively harmless but, if nasal obstruction prevents or interferes with nasal breathing, this preliminary arrest and expulsion of foreign bodies at the vestibule cannot be accomplished.

Then, too, by the researches of Hewlett and St. Claire Thompson,¹ the nasal mucus has germicidal properties not present in the mucus of the throat and lungs. In nasal obstruction these germicidal properties are changed. The mucus becomes viscid, inviting the retention of germs in the nose and furnishing for them a good culture medium instead of a germicidal fluid. In normal conditions the expulsion of germs by gravitation, by blowing the nose, etc., is of rather easy accomplishment, but in nasal obstruction their retention rather than their expulsion is invited.

We should mention also the mechanical effect upon the blood current and upon lymph currents made by these obstructions. Normally, in every act of inspiration there is venous pulsation from the head to the chest. In expiration the venous current is dammed back during the act. This venous pulsation in the head the writer demonstrated, before the Western Ophthalmological and Oto-Laryngological Society, by inserting a manometer into the external auditory canal and noting the fluctuations of the index in inspiration and in expiration. In nasal obstruction, as can be

demonstrated by the manometric test mentioned, there is venous stasis or passive congestion in the cerebrum. Moreover, as Gruenwald has recently pointed out, there is similar venous pulsation during normal respiration in the turbinated bodies of the nose. With each inspiration there is an emptying of the turbinated bodies, and with each expiration there is a refilling. Now let there be hypertrophies in the nose and there will be venous stasis, extending, perhaps, up through the ethmoid veins to the veins of the meninges, the longitudinal sinus, and the cavernous plexus.

Of fully as much importance also are the mechanical effects of nasal obstruction upon the lymph currents. The lymph clefts in the submucosa of the nose are in intimate connection with the subarachnoid spaces of the brain. Hyperplasias, by blocking these lymph channels, cause stasis of the lymph of the brain and, since tubercle bacilli may enter the lymph channels of the nose, they will much more probably be deposited in the brain or neighboring vital structures if a stasis in the lymph currents exists. Moreover, by this stasis waste products from the brain are not eliminated, but are retained with all the consequent evil effects of auto-intoxication. For we must remember that the cephalorachidian fluid must have a circulation of its own. It cannot in the nature of things be permitted to remain stagnant, and the recent investigations of Catherlin² show that this circulation is maintained by way of the lymphatics.

I must mention also Cobb's observation³ as to why tubercle bacilli are deposited by preference in the apices of the lungs. He states that in the act of respiration there is a "back-suction" in the lymph currents in the neck and upper part of the chest, due to the same mechanical influences that cause the venous pulse in the neck and head just mentioned. His contention is that the majority of tubercle bacilli, entering the system through the vascular or lymph channels, circulate as foreign bodies and are deposited wherever there is a certain amount of stasis or "back-suction." This he claims to be the condition at the apices of the lungs. If this be true, then in obstructions to respiration there would be an exaggeration of this "back-suction." In other words, there would be a greater liability to the deposition of the bacilli in the lungs.

BACTERIOLOGIC CONSIDERATIONS.

Let us speak of the direct invasion of the system by the tubercle bacilli in the nose and in the mouth. We will mention briefly, first, local tuberculosis, and second, general infection.

Local Tuberculosis. Local primary infection of the nose and mouth is more common than is generally supposed. The germs here have their first chance. Since the anterior parts of the nose and mouth are lined with squamous epithelium the type of the disease when primary must resemble inoculation tuberculosis. It is characterized by a torpid course and with a distinct tendency to cicatrization. The usual points of election in the nose are, first, at the anterior portion of the floor, on the cartilaginous septum, in the vestibule, and in the fissure at the junction of the ala with the septum. Evidently the infectious material is introduced here by the scratching finger, since it is confined to the area accessible to the finger nail.

Second, at the angle of the mouth where rhagades are very common.

Third, in the fissures of the gums, and in decayed teeth, now known to be quite common.

Fourth, in the crypts of the pharyngeal lymphatic ring.

The manifestations of local primary tuberculosis of the nose and throat are usually as follows:

First, the superficial aphthous ulcer; second, infiltration presenting the characteristics of granulation tissue; third, the polypoidal tumor; fourth, the deep ulcer; and, fifth, the nodular lupus infiltrate. All these affections are bosselated with tubercles. The tumors are soft and brittle and bleed easily, though usually the infiltrates are firm.

Tubercular ulcers have ragged edges, are usually shallow, rather dry, and the surrounding tissue is usually of a paler pink than in syphilis. But perhaps the most distinguishing feature is that the tubercular ulcer is free from pain and of slow growth and some times recovers spontaneously. Often, however, especially in the aged, the infiltrates, instead of undergoing superficial ulceration, consume the deeper tissues like malignant growths, extending perhaps from the floor of the vestibule through the lymphatic clefts of the incisive foramina to the mouth, extending perhaps into one or more of the accessory sinuses, to the face or to the skull.

Systemic Invasion. This brings us to the consideration of the systemic invasion by way of the mucous membranes of the nose and of the mouth. We must confine our remarks to the invasion of the vascular or lymphatic system in the nose and mouth.

The view that bacilli usually gain entrance into the vascular system and are then deposited in the tissues is one that is held, I think, by a majority of modern authors. If this be true it is

superfluous to remark that the mucous membranes of the respiratory and digestive tracts are the usual avenues of entrance.

We are thus led logically to conclude that the mucous membranes of the nose and mouth will offer the first opportunity for invasion to these germs, and I believe that these organs furnish a much larger quota of the cases of such infection than is generally supposed. This is what Freudenthal means when he says⁴, "The treatment of tuberculosis begins at the upper air tract."

Let us refer to the mucous membranes of the mouth for a moment. I believe that the possibility of infection through the gums and teeth is not given due consideration. The gums in children are nearly always ragged and sore, and infants are permitted to bite on objects picked up from the floor, to suck dirty rubber nipples, etc. And decayed teeth form ideal culture pockets for the germs. And, as Mr. Norman Bennett and Mr. Herbert Tilly⁵ have pointed out, the pulp of the tooth readily permits, and indeed invites the extension of the invasion.

The study of infection through the mucous membranes of the mouth was hastened by Rethi in 1893; was followed by Jaranowski⁶ and Walter⁷. But Miller⁸, of Berlin, has given the best study of the subject. He mentions 34 different local or general diseases traced to the action of bacteria in the month. A prominent place in this catalogue of diseases is given to tuberculosis.

Even an abraded tongue may be the port of entrance, though for obvious reasons infection from the tongue would be exceedingly rare. A number of such cases, however, are referred to by Butlin¹⁰, where local diseases of the tongue have preceded by several months tuberculosis of other members of the body.

As to the nose, Theisen has lately studied ozena critically in its relation to pulmonary tuberculosis¹¹. The germs taken into the nose in inspiration find in ozena an ideal soil for their cultivation. As Alexander says, "The nose, which should be a filter to protect the body from the bad results of an invasion of micro-organisms, itself becomes, in ozena, a collector of germs and a culture medium for these organisms and becomes a permanent source of infection."

Theisen examined 20 cases of ozena. In 6 the physical signs of tuberculosis were so positive that sputum examinations were unnecessary. In 2 cases the physical signs were slight, but the tubercle bacilli were found in the sputum and later the disease in the lungs could be readily determined. It is certainly more than a coincidence that 7 out of 20 ozena cases should be complicated

by pulmonary tuberculosis, and would, in the opinion of Theisen, point to an etiologic relationship.

The lymphatic tissue in Waldyer's ring is, however, the most important port of entry. A flood of literature on this subject has recently been put forth.

One of the best articles on the pharyngeal tonsil is by Lartigan and Nicoll, jr.¹² These writers, after an exhaustive and critical study of a series of cases, arrive at the following conclusions:

1. Five per cent. of the hyperplastic pharyngeal tonsils contain tuberculous lesions.

2. The lesion resembles the so-called tumor form of tuberculosis of mucous membranes. It is characterized by the absence of all recognizable external signs—"latent" tuberculosis of the tonsils.

3. This latent tuberculosis may apparently be the first and only lesion of tuberculosis in the body.

4. It is usually associated with more extensive tuberculosis of other organs, especially of the lungs, although this at the time of operation is not apparent.

5. Tuberculosis of the pharyngeal tonsil is relatively frequent in pulmonary tuberculosis.

6. The tuberculous process may affect normal tonsils as well as hyperplastic ones.

7. The tubercle bacillus plays very little part in the etiology of pharyngeal tonsil hyperplasia.

This is in line with the investigations of others. As early as 1874, Wendt¹³ found evidences of tuberculosis in the pharyngeal tonsil in tuberculous subjects, and his findings were corroborated by Megevan¹⁴. So far as I can discover, the first to describe isolated cases of primary tuberculosis of the adenoids were Suchanek¹⁵ and Domschowski¹⁶. In 1892, Pellet¹⁷ studied, by histologic methods, 10 specimens of adenoids removed from as many different persons and found one containing necrosis and giant cells. Lermoyez¹⁸ examined 32, two of which were tuberculous. Dienlafay¹⁹, basing his conclusions on animal inoculations, found that 7 (20 per cent.) of the specimens showed tuberculous lesions. The next year Pluder and Fischer²⁰ confirmed these findings. Taking 32 adenoids from apparently healthy persons and examining them histologically they found 16 per cent. tuberculous. While in the same year (1896) Brindel²¹ found 12 per cent. of his 64 cases tuberculous.

In a series of 200 specimens from the pharyngeal tonsils, studied

by Lewin²², ten of them were found tubercular. Twenty of the specimens were studied by animal inoculation, and one found to give positive results. He, therefore, concludes that 5 per cent. of hyperplastic pharyngeal tonsils contain tuberculous lesions, though these lesions are characterized by the absence of all recognizable external signs, and may be found in the so-called normal tonsils as well as in the hyperplastic ones. And though this "latent" tuberculosis of the tonsils may apparently be the first and only lesion of tuberculosis in the body, it is usually associated with tuberculosis of other organs—especially of the lungs.

The pharyngeal-tonsil-tuberculosis is especially frequent in association with tuberculosis of the lungs and of the meninges.

Lewin thinks that the tubercle bacillus plays very little part in the etiology of the pharyngeal hyperplasia, and that the tuberculous lesion may often be entirely removed by extirpation of the tonsil.

The faucial tonsils have been similarly studied and a great deal of literature given forth. Perhaps the best articles showing infection through the faucial tonsils are by Friedman²³ and by Labbe and Levi Serage²⁴.

Friedman is quite certain that in childhood tonsillar tuberculosis is as frequently the primary result of infectious food as secondary from bacillary sputum. He cites several cases quite conclusive of his position²⁵.

Ruffer²⁶, Galland²⁷, Hendlsohn²⁸ and Goodale²⁹ have also studied the tonsils critically. The latter arrived at the following conclusions:

1. Absorption takes place normally through the mucous membranes of the lacunae.
2. It follows the line of direction of the connective tissue.
3. The multinuclear leucocytes take part in the process.
4. Bacteria are usually found in the lacunae but are not easily recognized in the tonsillar tissue.

The results of experimental investigation by Jessen, Dieulafoy, and others are disputed by some writers on the ground that tuberculosis produced in animals inoculated with parts of excised tonsils may have been due to bacilli accidentally entangled in the spaces and not actually established in the substance of the gland. This is rather a fine distinction, and even admitting its validity it would only tend to prove that the tonsils are one of the points at which tubercle bacilli are arrested. Any failure in the phagocytic activity

of the tonsils might be expected to be followed by true infection of their substance and Dr. Sims Woodhead, some time back, designated the tonsils as one of the channels of entry of the tubercle bacillus. Following up his work, Dr. Hugh Walsham has recently in a communication to the Pathological Society of London, shown that tuberculosis of these organs is not so uncommon as is generally believed.

In conclusion, let me refer to the opinions of Escamel of Lima, Peru³⁰.

That writer regards the tonsils as the most tubercularizable organs in the entire alimentary canal. He has found tubercle bacilli in them even in healthy subjects and thinks that tuberculous infection of these organs is frequent and extremely easy, while the diagnosis is difficult. "The infection is generally exogenic, but once installed the general sympathetic system is liable to become invaded and no one can say where the infection will end."

BIBLIOGRAPHY.

1. Albany Med. Ann., Jan., 1904.
2. La Presse Med., Nov. 11, 1903, quoted by Journ. A. M. A., Dec. 19, 1903.
3. Journ. A. M. A., Dec. 26, 1903.
4. N. Y. Med. Journ., Dec. 19, 1903.
5. Laryngoscope, Feb., 1904.
6. Muench. Med. Woch., April 30, 1895.
7. Therap. Monatsch., Feb. 1895.
8. Brit. Med. Journ., Aug. 15, 1892. Ann. of Med. Sc., Vol. V., E 27.
9. Journ. des Malad. Coul., July, 1892.
10. Butlin, Diseases of the Tongue, 1885.
11. Albany Med. Ann., Jan., 1904.
12. Am. Journ. Med. Sc., 1902.
13. Zimsen's Handbuch.
14. Contrib. a l'etude des Mal. de la Voute et du Pharynx, Geneva, 1887.
15. Ziegler's Beitrage, 1888.
16. Zeigler's Beitrage, 1891.
17. Bull. de la Soc. Anat., Paris.
18. Bull. et Mem. Soc. Med., 1894.
19. Bull. de l'Acad. Med., 1895.
20. Arch. Laryn. Rhin., 1899.
21. Rev. hebdom. de Laryng., d'Otol. et du Rhin.
22. Arch. Laryng. u Rhin., 1899.
23. Beitrag. zur Path. Anat. u. z. Allg. Path., 1900.
24. Gaz. des Hop., 1900.
25. Editorial, Journ. A. M. A., Sept. 1, 1900.
26. Brit. Med. Journ., 1890.
27. Edin. Med. Journ., 1891.
28. Arch. Laryn., Bd. VIII. Heft 3.
29. Ibid., Bd. VII., Heft 2, p. 90.
30. Journ. A. M. A., May 14, 1904.

TUBERCULOSIS.*

By IVAR JANSON, M. D.,

SEATTLE, WASH.

This infection is ever with us, for, turn where we may, it is difficult to escape from the bacilli of tuberculosis. It confronts us in the hut of the Esquimaux and in the palace of the crowded city; we inhale it in the dust laden atmosphere of the city, while it may even pollute the fresh air of the country; it is transmitted through our water supply, our vegetables, our fruits and in insufficiently cooked meats; in our cup of milk and even from the lips of our friends.

When we consider how the stools of a single typhoid patient may infect a whole city, it goes without saying that the hundreds of thousands of tubercular individuals at large within the world, for the most part, without any restrictions whatever, scatter infection to the right and left; it must be apparent, that such an infective army makes the poison of tuberculosis pretty nearly universal.

When, besides the prevalence of human centers of infection, we consider the proportion of tubercular individuals in cattle, which infection, with little doubt, is practically identical with that of the human and the quantity of tubercule bacilli spread in infected milk and butter, we should be able to almost unanimously conclude that, though we exert the utmost care, we cannot escape the relentless infection which pursues us wherever we go.

How is it then that we are not all dead, that a single one of us remains alive after repeated attacks from such an enemy? A tolerance towards infection has been established throughout the centuries; through more centuries this may lead to complete immunity for the many and all, where even now it exists for the few. In past ages the infection undoubtedly presented itself as an acute one, following a rigid and fatal course, as it sometimes does even now, decimating centers of population and tribes. This universal scourge, by constantly culling out those most receptive to the contagion, those whose tissues yield to the poison most readily, must, by the law of survival of the fittest, gradually leave a race powerful in resisting the attacks of the enemy, of individuals becoming less and less receptive, whose tissues repel the intruder and successfully quench him.

*Read before the Washington State Medical Association, Seattle, Wash., July 12—14, 1904.

Although we thus see Nature working along beneficent lines, though apparently cruel to the individual, to eliminate a disease of this sort from existence, and bestow immunity from its ravages, it becomes none the less necessary to protect ourselves as much as possible from its contagion. This we can do by destroying as much of all contagious matter as can be and, as a state, carefully guard all known diseased individuals. A great many of these persons are irresponsible; they do not give a thought to the infective nature of the disease; many are of low intellectuality, and others have their intellect and sense of responsibility dulled by the suffering of a protracted disease and the result in both instances is that infection is scattered right and left, without any care as to the consequences. This should not be, and it becomes our duty to improve conditions for the future. What better use can the state make of its funds than to care for the sick and protect its well?

Institutions should be built on the plans of our asylums for the insane, where tubercular individuals could be cared for, and receive all benefits of any modern scientific advance; where they would be isolated, stuffed, exercised, secure air and water, bathed and receive the mental medication of good cheer, kindness and hope, besides desirable drugging. These institutions should be built and maintained by the state, gratuitously for all affected who desired to accept its advantages, and compulsory upon all who could not be properly cared for and supervised at home.

A great many of us have been taught that tuberculosis is an incurable disease, or practically so; that, when once contracted the prognosis must always be of the gravest. I feel convinced that this is a great mistake; even my limited experience has taught me so, and I want to say with emphasis it is a fallacy, a bugbear of our ancestors that should be promptly downed. Our post-mortem tables teach us that in a great proportion of cadavers old lesions of tuberculosis exist, where such an infection had never been known to the individual.

I call to mind several old friends, gray haired, vigorous, hale and hearty, who had been condemned to a few weeks of life, many years ago. Again and again, within my limited practice, I have seen apparent recovery in tubercular infections so often that I have learned to feel that, given the proper conditions, tuberculosis is really a tractable disease, where we can expect to conquer the infection in a large percentage of cases. I have seen recovery under

the most adverse circumstances, in far advanced stages, in acute cases with sudden onset, high temperature, enlarged glands, etc.; in the young and tender individuals, with fair skin, blue eyes, and flaxen hair, with glands as large as a pullet or pigeon egg extending down the cervical chain. I have seen apparent recovery in such that I had been taught were absolutely hopeless.

In discussion to follow you will no doubt call attention to the fact that I have used the term "apparent recovery." I do this out of respect for almost universal authority, but I mean recovery in fact. I do not believe in the theory of latent infection; it is not necessary to explain a so-called recurrence after a number of years in this manner. If I have suffered an attack of lobar pneumonia it does not protect me from another attack in the ten or twenty years to come and if I get this it is not a recurrent onslaught from microbes which have rested in desirable inactivity during this period, but a brand new assault from a brand new enemy. This being so with many other diseases, why should it not be with tuberculosis? Say that an individual has had an attack of tuberculosis and recovers, as they often do. There is nothing to prevent him from again becoming a victim in the years to come, and there is no need for the cry of dormant, or latent infection, for fresh contamination is plentiful enough, and we are all exposed to it.

Since in a paper of this sort I can only give a brief outline of my general views, I will pass to a few words about treatment. First and foremost, if it be possible, extend to your patient the grace of encouragement and good hope, and thus you place in his hands a battering ram of vast importance in breaking down the fortifications of the enemy. Be frank and honest with him, explain facts truthfully as much as may be necessary but make a fighter of him; tell him the outcome depends largely upon himself and how he follows out your instructions; put him into the right mental state, and sprinkle lots of sunshine into the prognosis, unless he is absolutely doomed. He who robs his patient of all hope, pushes him into an open grave. I have seen them brought back from its very edge, when all professional judgment had abandoned them absolutely, and they have had no hope, except their own indomitable will; they have simply refused to die and got well. I have seen this even in tuberculosis. So give your patient all the benefit of the doubt; good cheer to him is the first essential in treatment, not alone mental but physical.

Stuff your patient with food, such as cream, butter, milk, raw eggs, rare meats, etc. For some cases I would include alcohol among the most important foods, and cod liver oil for almost all; this last should be given to the toleration limit, up to half a cupful, if assimilated; the patient should practically live out of doors, abundance of fresh air and sun baths being important essentials. Turn him back into a savage as nearly as possible; let him loaf around the trout streams and live in a tent all summer, with instructions for guarded exercise, according to the shape of the disease, and the conditions of the patient. The elevation above sea-level should be considered, according to the patient's status, bearing in mind that high levels are apt to bring on severe hemorrhages. In winter, where the climate necessitates living indoors, insist upon open windows in the bed-rooms, the bottom of the sash raised with some outlet high up; exercise in lung expansion should be regularly employed in pulmonary involvement.

In medication, creosote heads the list of valuable remedies by all odds; in some cases it acts almost as a specific, but it must be given fearlessly. Small doses are of little avail. Personally I start the patient in the neighborhood of 20 m. to the dose and rapidly increase up to 40, 50, 60, or even more minims, three times a day. I give it on an empty stomach, dropped into empty capsules, holding about 20 m. apiece and follow by milk. This conveys, in brief, my views upon tuberculosis in general.

THE ETIOLOGY OF TUBERCULOSIS AND ITS GOVERNING FACTORS IN TREATMENT.*

By J. J. LEISER, M. D..

SEATTLE, WASH.

We generally agree that patients with pulmonary tuberculosis are benefited by high altitude. There is, however, much discussion as to the ways and means through which a benefit occurs. In the Rocky Mountain regions, where high altitude has dry air, we must credit more or less benefit to this combination, for a dry air is absorbent and the usual expectoration is always much diminished in consumptives locating in the dry climate. The diminished obstructive sputum is a great relief to the struggling blood and air supply of the lungs. All other improvement from eleva

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tion is due to extra lung expansion made necessary by rare atmosphere.

Some years since Dr. Fournace, then Pathologist at the University of Pennsylvania, announced, as a result of his research in a series of post-mortems on tubercular cases, that he found in all of them an anatomic abnormality in the lung structure which he characterized as a deficiency in the growth of interlobular, areolar tissue. He proclaimed the principle that in this particular the lungs were weak, inasmuch as their vascular system was proportionately diminutive, and thus defective, of undersized caliber, and the normal blood supply was prohibited. He theorized that in health it is possible for such a lung to fill its office but when accidents overtake it, as congestions or inflammations, they strangle the circulation and restrict normal functions. Disease may readily establish itself in this condition—then tubercle bacilli find it possible to lodge and propagate. This may be a hereditary, congenital or acquired weakness. For correction, first, high altitude suggests itself for reasons stated. Nothing else will answer the purpose so well. The continuously strained expansion will, as witnessed by all medical men located in the elevated regions, best grow up to standard in such defective, inefficient lungs.

It is in evidence that many cases of consumption recover, among them cases with extensive lesions. Every doctor can recall cases of cure or spontaneous healing. The manner of healing in these cases must be explained from the standpoint of this announced anatomic defect being a cause for the disease.

If we destroy part of a lung extra work will be imposed upon the remaining part to insure a necessary oxygen supply. If one-half of one lung be destroyed the three remaining halves must do one-fourth above their original capacity of overwork. This must be through extra expansion or through extra frequency in breathing. Increased frequency in breathing is exhaustive, while doctors with experience in high altitude can testify that expansion or development of a normal lung to far above its original habit is rapid and easy. The pilgrim to high places puffs vigorously but is astonished at the short residence required to bring his endurance up to that of the old settler. At first he must establish a frequency, which is soon relieved by expansion, growth, enlarged capacity.

If through disease one loses some of his lung structure, his situation is equivalent to him who finds himself in the rarified at-

mosphere of elevation—he is short in his required oxygen supply. To establish normality in this is a matter of extra expansion or of more rapid breathing. We may expect nature here to be as kind to us as in our demand from elevation. If the disease be tuberculosis, with its defective structure, we dare look for forced expansion to bring the interlobular, areolar tissue and vascular caliber up to normal in size and capacity, and above this to compensate for the lost structure. Immunity will follow this step.

In a death from pneumonia in the Rocky Mountain regions it was found that one lung at some previous date had been entirely destroyed, though no defective respiratory organ had been suspected. In this case, one lung becoming destroyed by tuberculosis, the double work imposed upon the remaining lung expanded its structure to the capacity for performing the functions of the original two lungs; from this overgrowth in its structure the one lung was immunized against the disease.

Many years ago Laennec called attention to the fact that pulmonary tuberculosis was very rarely associated with certain forms of heart disease and the immunity he attributed to the stasis of the blood in the lung, resulting from the heart disease. The original idea of Laennec was that tuberculosis did not occur in severe cases of scoliosis, where the entire pulmonary system was in a state of stasis. And today it is becoming a popular treatment in tubercular disease of the joints to use an elastic bandage in a manner to retard venous circulation and thereby create a stasis of such joint.

Given this theory then, consumptives must automatically cure themselves. This is what we are to expect. Unfortunately many subjects of the disease are over-mastered by debility, through which their vitality and energy are so lowered that they call for only a share of healthful supply of oxygen. Thus they fail to enforce the necessary lung compensation, which creates growth, expansion and secures immunity.

Can we decide that this anatomic defect, this incapacity, must be a positive factor in consumption, or must we still hold fast to the tubercle bacillus as the supreme ruler of the victim's destiny? The following remarks of Dr. Carl Schulin appear to me much of an argument that the bacilli may be but a secondary condition in cause:

“The bacilli in human tuberculosis sneak in singly, here and there, and leave no trace behind at the place of their entrance”;—

"having passed through the epithelial cover of the body, first settle in the lymphatic glands, where they remain for years, apparently without doing any harm";—He continues: "The human tubercule bacilli alone seem unable to kill men. To accomplish the destructive work for which they are so much dreaded they apparently need some assistance. Obviously they receive this from different kinds of cocci."

As to cure, guaranteeing the patient from further waste and growing for him additional vitality are points for consideration. Elevation with its rare atmosphere which compels forced breathing, forced lung development, is curative as well as preventive. Medication directed to the renewal of energy, vitality, is curative; climatic changes creating faith, hope; new and boasted remedies—quack or otherwise—if they inspire belief; appliances that exercise without exhausting; new fads working on above principles; faith cure and suggestion chronicle cures. Such discoveries as the Koch cure, sprung upon consumptives, had their good effect.

There is a call for new and heroic measures. One efficient lung will insure good health, while two defective lungs will end fatally. A diseased, or partly diseased lung obliterated will save the healthy, inasmuch as the extra work thrown upon it will force it to a standard beyond infection or contagion. This presents a difficult problem, as surgical procedure is difficult and dangerous within and about the lungs. Once we can safely enter the chest wall and amputate, ligate, destroy a given amount of lung tissue in the incipient consumptive and force the remaining field to develop, to expand to enlarge its blood courses and air passages, then will we have the problem well in hand.

We have the simple and rational procedure of blotting out a helpless, diseased lung in the interest of the one capable of bearing the whole burden, by filling the cavity with saline solution, or by one of the several gases some medical men are advocating as curative. The total collapse of one lung need not be severely dangerous, as will witness several diseases, and frequent past injuries, causing collapse.

There is a wide field here for invention for we have no present methods of filling the offices of rarified atmosphere with forced lung expansion, and we must not delude ourselves into the belief that artificial treatments, a few hours out of the twenty four, will be of any avail, nor will locating in elevated regions fulfill our hopes, if not attended with every possible resource that might be termed first aid to the disease, under every other location and condition. When we have learned to master operations upon the lungs, as upon other organs, we will be able to drive them into subjection.

PANCREATIC INFLAMMATIONS IN THEIR RELATIONSHIP TO CHOLELITHIASIS, AND THEIR TREATMENT.

By A. W. MAYO ROBSON, F. R. C. S.

LONDON, ENGLAND.

Vice-President and Hunterian Professor, Royal College of Surgeons, England.

(Concluded.)

TREATMENT.

The treatment of catarrhal inflammation of the pancreas and of chronic interstitial pancreatitis will at first be by general and medical means, aiming at the cause whether that be gall stones, pancreatic calculi, duodenal catarrh, gastric ulcer, alcoholism or syphilis; but if after a fair trial of medical treatment, not too long continued, the jaundice and loss of weight continue, and the signs of failure in pancreatic digestion and metabolism are manifesting themselves, the question of surgical treatment should be seriously considered, for the condition is one that if not relieved early will certainly lead to serious degeneration of the gland, or become dangerous to life in other ways. When operation is undertaken before the process has advanced to well-marked interstitial pancreatitis, my experience is that complete cure is effected in a very great proportion of cases, but if interstitial inflammation has become well marked and has advanced either to the interacinar form or to cirrhosis, an arrest of the process is all that can be looked for. As proof of this statement in some of my own cases, apparently well several years after operation, a pancreatic reaction can yet be obtained in the urine, while in two cases glycosuria has developed, thus showing that inflammation of the pancreas, if at all advanced, leaves abiding changes, and the sooner the morbid process is checked the less likelihood there will be of a permanently deficient metabolism.

Surgical treatment will vary accordingly to the cause and the symptoms. Where there is evidence of obstruction, whether in the pancreatic or common bile ducts, the cause in the greater number of cases, 27 as compared with 24, will prove to be concretions, which should, if possible, be removed, and, as proved by my experience in this field of cases, the hope of cure or of great relief is very promising.

Not only is it desirable to remove the cause of obstruction, but at the same time the bile ducts should be drained either

by means of cholecystotomy or cholecystenterostomy. Where no obstruction in the shape of gall stones or pancreatic calculi can be found, I would still advise drainage of the bile ducts by one of these operations. It has been argued that it is difficult to comprehend how drainage can do good in these cases; for proof of its efficiency, I would appeal to the list of examples that I have given and to the after history of the cases which I have operated upon. The drainage of the bile ducts acts, not only by removing one source of irritation in the shape of infected bile, but at the same time it relieves tension and allows the infected pancreatic secretion to escape, besides also freeing the blood from a poison which seriously damages it and the system at large. Besides the beneficial effects of drainage, in many of the cases the cause of obstruction is also removed. Whether advanced chronic interstitial pancreatitis will be completely cured by operation it is difficult to say, for in some of the severer cases a pancreatic reaction is found long after operation and after all other symptoms have cleared up, but in several cases that have been tested years after operation, the pancreatic reaction has entirely disappeared, thus apparently proving that the case is cured. Moreover, I suspect that the operation arrests the process of disorganization, even if it can not alter the changes that have already occurred. Doubtless, in some the disease was a catarrhal inflammation of the pancreas, which was arrested either before interstitial inflammation had actually developed or before it had advanced too far, and probably in none of the cases had the interstitial change advanced so far as to become inter-acinar, or to present the advanced stage of atrophy or cirrhosis, as in none of the cases was sugar present in the urine at the time of operation, though the metabolic functions of the pancreas were impaired, as shown by the presence of the pancreatic reaction, and the digestive functions were affected as shown by the condition of the feces.

Whenever the pancreas is involved either in catarrh or in chronic inflammation, the surgeon must be prepared to do a thorough operation for exposure of the whole length of the common duct as well as the head of the pancreas. I trust that I shall be pardoned if I give in detail the operation which I have been accustomed to perform, and which I have found both convenient and efficient.

DETAILS OF OPERATION.

I have been able to modify the operation for exploring the head of the pancreas and the common bile duct in such a way that what

was formerly a most difficult procedure, involved prolonged manipulation, special appliances, and at least two assistants, is now a comparatively simple operation, in the greater number of cases, only requiring the help of one assistant and not requiring the use of any special apparatus. By this method the time involved in the operation is reduced considerably, and where adhesions do not give unusual trouble, it is easy to complete the work in from 30 to 40 minutes, which not only means a saving of time and fatigue to the operator, but a considerable saving of shock to the patient. I always employ a firm sandbag under the back opposite to the liver, which not only pushes the spine, and with it the pancreas and common duct, forward, but acts like the Trendelenburg position in pelvic surgery by letting the viscera fall away from the field of operation. I then make a vertical incision over the middle of the right rectus, the fibres of which are separated by the finger, which I find to be the most expeditious and the most effective method of exposing the gall bladder and bile ducts, but when it is necessary to open either the common duct or the deeper part of the cystic duct, instead of prolonging the incision downwards, as was formerly done, I now carry it upwards in the interval between the ensiform cartilage and the right costal margin as high as possible, thus exposing the upper portion of the liver very freely. It will now be found that by lifting the lower border of the liver in bulk (if needful, first drawing the organ downwards from under cover of the ribs) the whole of the gall bladder and the cystic and common ducts are brought close to the surface, and as the gall bladder is usually strong enough to bear traction, the assistant can take hold of it by fingers or forceps, and by gentle traction can keep the parts well exposed, at the same time that, by means of his left hand with a flat sponge under it, he retracts the left side of the wound and the viscera, which would otherwise fall over the common duct and impede the view. It will now be observed that instead of the gall bladder and cystic duct making a considerable angle with the common duct an almost straight passage is found from the opening in the gall bladder to the entrance of the bile duct into the duodenum, and if adhesions have been thoroughly separated, as they should always be, the surgeon has immediately under his eye the whole length of the ducts with the head of the pancreas and the duodenum. So complete is the exposure that, of needful, the peritoneum can be incised, and the common duct be separated from the structures in the free border of the lesser omentum, but this is not necessary except where a growth has to be

excised. The surgeon whose hands are both free can now with his left finger and thumb so manipulate the common duct as to render prominent any concretions which can be cut down on directly, the edges of the opening in the duct being caught by pressure forceps. The assistant can now take hold of the forceps with his left hand, as that instrument with the sponge will form a sufficient retractor, since the duct is so near the surface. When the duct is incised there is usually a free flow of bile, which, it must be remembered, is infective, but a sponge in the kidney pouch and the rapid mopping up of bile as it flows, by means of sterilized gauze pads, avoid any soiling of the surrounding parts, and, if thought necessary, the bulk of the infected bile can be drawn off by the aspirator either from the gall bladder or from the common duct above the obstruction before the incision into the duct is made. After removing all obvious concretions, the fingers are passed behind the duodenum and along the course of the hepatic ducts to feel if other gall stones are hidden there, and a gall stone scoop, the only special instrument that I use, is passed up into the primary division of the hepatic duct in the liver and quite down to the duodenal orifice of the common bile duct, and to ensure the opening into the duodenum being patent, a long probe is passed into the bowel. The incision into the bile duct is now closed by an ordinary curved round needle held in the fingers without any needle-holder, a continuous catgut suture being used for the margins of the duct proper, and a continuous fine green catgut or spun celluloid thread being employed to close the peritoneal edges of the gut. In such cases where the pancreas is indurated and swollen from chronic pancreatitis, and is likely to exert pressure on the common duct for a time, I insert a drainage tube directly into the duct and close the opening around it by a purse string suture, the tube being fixed into the opening by a catgut stitch, which will hold for about a week, but where this is done I usually fix a drainage tube into the fundus of the gall bladder in the same way, as this drains away all infected bile and avoids pressure on the newly sutured opening in the duct.

So easy is it to remove impacted stones after this method of exposure that I now never spend a long time in manipulating stones impacted either in the cystic or common duct, but at once incise the duct, remove the concretions, and close the opening without damaging the duct by prolonged manipulation. Although there is seldom any fear of leakage or of infection, yet, owing to the separation of extensive adhesions, there is usually some ten-

dency to pouring out of fluid in the first 24 hours. I therefore generally insert a gauze drain through a split drainage tube, bringing it out by the side of the gall bladder drain. The wound is closed in the usual way by continuous catgut sutures, first to the peritoneum and deep rectus sheath, next to the anterior rectus sheath, and lastly to the skin. Even in acute or subacute, as well as in chronic pancreatitis, this method is advantageous, as at the same time that the pancreas is exposed the bile ducts can be explored, and if the cause be gall stones, they can be removed. Should it be necessary to expose the under surface of the pancreas, an extension of the incision downwards gives enough room to raise the transverse colon and to get directly at the body of the pancreas through the transverse meso-colon.

A careful study of the causes of mortality in operations on the common duct, associated with jaundice and pancreatitis, shows that hemorrhage, either immediate, consecutive, or secondary can not be ignored as a danger, and that shock, apart from hemorrhage, has next to claim our attention. Sepsis is no longer the bugbear that it used to be, thanks to a rigid all-round asepsis, the employment of gauze drainage, and the careful avoidance of soiling the wound by infected bile. Although there is a greater tendency to bleeding in chronic jaundice from pancreatic disease than when jaundice is due to gall stone obstruction, I think there can be no doubt that in all cholemic conditions the blood becomes so altered that the coagulability becomes seriously diminished, and that these features demand serious attention before any operation is undertaken in cases of common duct cholelithiasis.

I now always employ chloride of calcium in the case of jaundiced patients, both before operation in 30 grain doses by the mouth, and afterwards in 60 grain doses by the rectum twice or thrice daily for several days.

I think it is important to ligature all bleeding points and not to trust simply to forcipressure, and while in non-jaundiced patients adhesions may be simply separated, in these cases I prefer to divide adhesions between ligatures where practicable. Where there is persistent oozing of blood from innumerable points, a tampon of sterilized gauze forms a useful means of hemostasis, and this may be made more efficient by employing at the same time a solution of suprarenal extract to the bleeding surfaces.

The best treatment of shock is preventive, and to that end it is desirous to lose as little blood as possible, though I do not agree

with those who assert that shock in operation is always dependent on loss of blood.

The patient is enveloped in a roughly made suit of gamgee tissue, and where he is very feeble, or the operation is likely to be prolonged, it is performed on a heated table. A large enema of normal saline solution with or without stimulant, given from 15 to 20 minutes before, and the administration of from 5 to 10 minims of solution of strychnia, subcutaneously just before commencing anesthesia are useful. Expedition in operating is an important factor in lessening shock, especially in abdominal surgery, for it stands to reason that prolonged manipulation of the viscera in patients so ill as are those composing the class of cases which we are now considering must generally be, will be badly borne, for it is not only the work of the surgeon but the deep anesthesia that adds to the shock, since for the operation to be well and expeditiously performed the muscles must be thoroughly relaxed.

After the operation, a pint of saline fluid, with one ounce of brandy, is given by enema, and five minims of solution of strychnia are given subcutaneously in two hours and repeated if desirable.

Subcutaneous injections of saline fluid or intravenous infusion are only rarely required.

TREATMENT OF ACUTE PANCREATITIS.

The pain at the onset is so acute as to necessitate the administration of morphia, and the collapse will probably demand stimulants, which, on account of the associated vomiting, may have to be given by enema. In the early stages the symptoms may be so indefinite that the indications for surgical treatment are often not clear enough to warrant operation. But as soon as acute pancreatitis is proved, as it may be by the combination of symptoms, together with the urinary test, the surgeon must not wait until the collapse has passed off, as that may be dependent on septic absorption, which can only be relieved by operation. The simulation of intestinal obstruction will probably lead to efforts to secure an evacuation of the bowels and relief to the distension. Just as in perforative or gangrenous appendicitis an early evacuation of the septic matter is necessary to recovery, so in this equally lethal affection an early exploration from the front either through the right rectus, for reasons stated previously, or through the middle line above the umbilicus or from behind the left costo-vertebral angle is indicated, in order, if possible, to relieve tension, to evacuate septic material, to secure free drainage and to arrest the hemorrh-

hage, which leads to disintegration and necrosis of the pancreas. The after treatment will be chiefly directed to combating shock and keeping up the strength until the materies morbi, both local and general, can be thrown off. Even if no pus be found, no harm should accrue by such an exploration, which can be made in a few minutes through a very small incision in the middle line above the umbilicus, if necessary, with the aid of cocain. After establishing the diagnosis by the discovery of fat necrosis, a posterior incision in the left costo-vertebral angle will not only enable the diseased organ to be very freely examined and, if necessary, drained for the evacuation of pus and gangrenous material, but will also secure free drainage of the lesser peritoneal sac. If, however, the inflammatory collection or the tensely distended and inflamed gland be incised from the front, as is advisable in certain cases, gauze packing and gauze drainage may usually be relied on to prevent general infection of the peritoneum. If there are signs of obstructed common duct, the gall bladder should also be drained, and if gall stones be discovered, they should be removed, if this can be done without seriously adding to the length of the operation or imperiling life by adding to the shock, otherwise they may be left and removed on a subsequent occasion if free drainage of the bile passages can be secured. I have had seven cases of acute pancreatitis under my care, and have operated on five, three of which recovered. Of the two cases where operation was not consented to and where medical treatment alone was carried out, death occurred, in the first case on the third day, and in the second case after a week's illness, attended in both with great pain and incessant vomiting.

I have already described a case of gangrenous pancreatitis in a man, aged 58 years, in which I was able to open a collection of fluid through the great omentum above the hepatic flexure of the colon, and to extract a slough of the pancreas, and at the same time to drain the gall bladder and remove all gall stones, recovery being ultimately complete.

In another case, in a middle-aged man run down by overwork, but who was otherwise healthy, a sudden severe epigastric pain was followed by high fever, rigors, epigastric swelling and obstruction of the common duct. Abdominal distension, chiefly of the upper part, and an ill-defined epigastric tumor pointed to the pancreas, and fat in the motions with the pancreatic reaction in the urine confirmed the diagnosis of pancreatitis.

As there had been a previous history of gall stones, the question

of common duct cholelithiasis was a cause that was thought probable. Exploration revealed a considerable tumefaction of the whole length of the pancreas, but especially of the head of the gland. Omental and visceral adhesions, together with the extreme illness of the patient, rendered a careful examination impossible, and as the gall bladder was acutely inflamed and distended, cholecystotomy was performed. Within the next twenty-four hours nearly two pints of muco-purulent material tinged with bile escaped. No gall stones were felt. The patient recovered, and is now well.

A case was reported by Dr. Charles D. Muspratt of a woman, aged 40 years, who had been admitted to the Royal Victoria Hospital, Bournemouth, on December 3, 1903, in a state of collapse, and suffering from severe abdominal pain with incessant vomiting. The abdomen was opened within twenty-four hours of the onset of acute symptoms, and the omentum and intestines in the neighborhood of the pancreas were found deeply blood-stained with numerous spots of fat necrosis. The pancreas was almost purple and extremely tense. An incision was made into the dark gland, and very free bleeding followed, which was arrested by ligation. Gauze drainage was employed and complete recovery followed. This is apparently the first case in which direct incision of the pancreas has been adopted, and the operator is to be congratulated not only on having the strength of his convictions in treating acute hemorrhagic pancreatitis on the lines of other phlegmonous inflammations, but on the success of such treatment.

In a case reported by Von Mikulicz in 1903, a patient under the care of Dr. C. B. Porter, of Boston, was operated on by a deep incision into the inflamed gland, with an excellent result. This is apparently the second case in which the pancreas was deliberately incised during acute inflammation with a successful result. Woolsey (*Annals of Surgery*, November, 1903) gives a summary of three cases of this affection successfully dealt with by laparotomy and drainage. The first two cases were operated on in the early stage—the first on the third day and the second twelve hours after the onset. The first case was a hemorrhagic one, and showed fat necrosis; the second case showed no fat necrosis nor bloody fluid, but the latter appeared on the removal of the gauze drain two days after the operation. In the third case there was marked but temporary glycosuria.

The argument that the mortality will be less if the surgeon waits for the formation of a local abscess is fallacious, as it takes no consideration of the large percentage of those who die before

such a favorable result is presented, and, in the second place, many patients never develop a local abscess, the process being diffuse from the onset. The high mortality of an early operation in acute cases is due to the fact that in many of these fatal instances intestinal obstruction was suspected, and the collapsed patients were subjected to a prolonged search for the seat of the supposed lesion. Of 59 reported cases of operation during the acute stage, 23 recovered—these include my own cases and those just referred to. Although this is a large mortality, it must be borne in mind that the disease is a lethal one, and usually ends in death if not treated surgically.

The lessons which one may learn from recorded cases are not to wait until the system is over-weighted with absorbed poison before operating and not to spend too long a time over the operation.

In conclusion, if we were to base our opinions on the post-mortem records of the past, inflammatory affections of the pancreas would have to be considered among the rarest of diseases, but recent clinical observations and operative experience shows that such conclusions would be far from accurate, and I think I have been able to demonstrate, both from my own and from the experience of others, that inflammatory affections of the pancreas or its ducts are very much more common than is generally supposed. Fortunately, in showing the frequency of pancreatitis, and the very serious nature of the acute, subacute and chronic varieties of the disease, I have been able to demonstrate that we can do very much for these patients by timely surgical intervention. But I want to convince my audience that if only we can have the assistance and support of our medical colleagues, nearly all the cases forming the subject of my address today (that is, pancreatitis due to gall stones) may be prevented by timely interference, and that with barely 1 per cent. of risk.

We know that gall stones may exist in the gall bladder without causing any trouble and without giving notice of their presence, but as soon as they pass into the cystic duct, or as soon as they begin to produce catarrh, they fortunately give ample evidence of their presence.

Were the concretions removed in that stage, there should be no mortality, and, as can be proved both by my own personal experience in several hundred cases and by the experience of other operators of large experience in this line of work, the operative treatment of cholelithiasis undertaken before the onset of deep jaundice and infection of the bile and pancreatic ducts is with due care and in skillful hands almost devoid of danger.

CLINICAL REPORT.

A CASE OF ACUTE INTESTINAL OBSTRUCTION DUE TO MECKEL'S DIVERTICULUM.

By GRANT CALHOUN, M. D.

SEATTLE, WASH.

Family history negative. Boy aged 16 years. Always apparently healthy except two days illness, about four years ago, with some bowel trouble. The author was called one morning and found the patient in the following condition:

General colicky pains in the abdomen. Bowels had moved regularly but not freely for four days past. Temperature 101° F. or less throughout the attack; pulse 90. Slight distention of abdomen. Slight spasm of the abdominal muscles on palpation. No localized tenderness. On percussion, one inch below umbilicus, in median line about 2 inches in diameter, a circumscribed dull area. All food by mouth stopped; rectal injection of epsom salts in warm water ordered.

At 4 p. m. the same day he had had free movement of bowels; pain much less. Just below the umbilicus a distinct circumscribed tumor was visible.

Consultation called at 5 p. m.; in the mean time bowels had moved freely; unfortunately passage had been thrown away but was said by mother to be very offensive. Tumor had disappeared and patient was convalescent next day.

Four years later, after hunting ducks all day, on February 26, 1904, he had general colicky pains as before but more severe. Bowels had not moved for four days. Temperature and pulse normal. He had slight general distention of the abdomen. No localized pain but palpation would make general pains more severe. Slight rigidity of abdominal muscles. General abdominal tympanites present. Half an ounce of epsom salts given by mouth and repeated in two hours.

Feb. 27. Reported bowels had moved freely, patient better and up town. About 10 p. m., same as evening before but less distention of abdomen, but some nausea without vomiting. He took nothing but a little milk by the mouth; a rectal injection of epsom salts in warm water, repeated in 4 hours.

Feb. 28, a. m. Rectal injections during night had given no result. Pulse and temperature still normal. Vomiting, occurring every few minutes, had commenced about midnight—food at first and then a clear, watery fluid. Abdomen slightly distended. On palpation no localized pain; spasm of the abdominal muscles. Tympanitic on percussion, especially in upper right quadrant. A distinct dull area to the right and above the umbilicus, an inch in diameter. Three high rectal injections were given personally, with no result, not even flatus.

5 p. m. Temperature for the first time had risen to 99.4-5° F., pulse 80. Patient's expression was becoming anxious.

Diagnosis of Acute Intestinal Obstruction. Operation, at Providence Hospital, at midnight of same day, assisted by Doctors Wotherspoon and Crookall.

Median incision showed a Meckel's diverticulum, given off at right angles to the ileum, at the opposite side from the mesentery. The middle of the diverticulum was attached to the anterior abdominal wall, an inch above and to the right of the umbilicus.

Its extremity had become adherent at the junction of a loop of intestine so as to constrict the lumen of the bowel to that of a slate pencil.



Meckel's Diverticulum.
(Natural size)

The adhesions were easily broken up and the constricted bowel liberated. The larger or intestinal end was amputated from the bowel, with the lumen of which it was continuous, and the bowel sewed up with two rows of sutures.

The portion of bowel at the seat of stricture being badly congested, it was brought to the base of the abdominal wound and completely packed around by gauze. Through and through silkworm gut sutures were inserted but not tied. Gauze was removed in three days and patient fully recovered with no untoward symptoms.

PRIZES OFFERED BY NORTHWEST MEDICINE.

We wish to keep before our readers the prizes of \$50 and \$25 which we have offered to physicians of the Pacific Coast for the best papers on original work presented to us on or before the first of next September. The announcement of the names of the successful competitors will be made at the fall meeting of the Washington State Association.

TO OUR READERS AND CONTRIBUTORS.

All material for publication must be received by the twentieth of the month preceding publication. Articles will be illustrated by half-tones or etchings when accompanied by photographs or drawings for the same. Reprints of contributed articles can be obtained at the cost of publication, from the Metropolitan Press, publishers of the journal. A limited number of additional copies of the journal will be supplied to contributors, if a request is made for them.

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CLARENCE A. SMITH, A. B., M. D.
Editor in Chief.

JAMES B. EAGLESON, M. D.
Managing Editor.

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NO. 5

A GREAT A. M. A. MEETING AT PORTLAND.

As the time approaches for next summer's meeting at Portland, it is evident this will be one of the memorable meetings of the Association. A large attendance is assured from the East, as shown by the number of special medical trains scheduled from different sections. The local Committee of Arrangements has prepared a most attractive week of entertainment, the features of which have been presented to the profession of the country. Many physicians have never visited the Pacific who will now do so for the first time, who will also desire to extend their vacations by visits to Alaska and our Pacific possessions. The profession of the Northwest should grasp the opportunity of extending a cordial welcome to these strangers. We would again urge upon the profession of Washington not to neglect this rare opportunity of mingling with the distinguished men of their kind. Let every one plan to visit Portland during Association week.

PAPERS READ BEFORE LOCAL MEDICAL SOCIETIES.

When a member of such a society or any one not a member is asked to produce an original paper for discussion, the selection of a subject is not an easy task and writing the paper is a still harder one. The essayist feels that he must make himself clear upon the subject selected and at the same time be concise. He sometimes feels that he must dilate upon some of the occult things pertaining to the practice of medicine or surgery, and that he will not be properly appreciated if the more common diseases or injuries are selected. We believe in selecting a subject for discussion that, as

a rule, much more genuine interest and practical discussion will be brought out if the subject chosen be one with which all are more or less familiar. The diseases of every day experience, both medical and surgical, the less common ones but which every one may not infrequently meet, and now and then the more interesting rare varieties can be discussed with profit. The review of modern pathologic knowledge and practical laboratory methods, as used in the study of various physiologic functions, and the pathologic conditions arising in different well known diseases, is always interesting.

The more obscure subjects now under study and investigation by the master workmen of this country and Europe, are in a more or less chaotic condition. The subject of immunity, with its various arrangements of long and confusing array of names and terms, makes interesting reading when put in print by some master hand, and we should all follow the general trend of pathologic investigation, and note carefully the application of every thing modern in the treatment of diseased conditions, when such treatment has been proven of value by men in authority.

If one has time and means to equip himself and will do original work in any branch, nothing can be more commendable. It would seem better not to write upon subjects with which we are not familiar or promulgate theories, when medicine and surgery are so full of practical things of interest to every one.

PASSING OF THE STATE ASSOCIATION.

It has been suggested and advocated by some that the meeting of the Washington State Medical Association should be omitted this year on account of the A. M. A. meeting at Portland, through fear that the members will not attend two meetings of this kind within a few months of each other. We wish to enter an emphatic protest against such a procedure, in which we are supported by all members consulted concerning the matter. If the meeting, set for September, were postponed for a year the intervening period of two years and several months since the last meeting would, in our estimation, cause a serious stagnation in the interest in the Association. In point of fact, attendance on the session of the National organization in July should serve as a stimulus to make the State meeting in September one of the best and most profitable in its history. Physicians in the East, who regularly attend the A. M. A. meetings, do not consider that their State meetings should thereby be neglected nor be permitted to suffer. This feeling exists in the minds of those who are unaccustomed to attend the

meetings of the A. M. A. and to whom two large gatherings within six months seems a great demand on their time and attention.

We would urge upon the Committee of Arrangements to hold the fall meeting in Tacoma as planned, and that they use all means at their command to enthuse the members to prepare papers that will ensure a meeting of profit and interest. If nothing else be accomplished, the meeting is worth the while in order to bring the profession together once a year for the interchange of ideas, to foster a feeling of fellowship and to consider measures for mutual advancement.

DISTRICT MEDICAL SOCIETIES.

The Idaho Medical Society plan is an ideal one for a section of the country where physicians are few and scattered. Instead of attempting to maintain a number of small and weak county societies the present state association has established North and South District Societies, which meet quarterly, thus insuring two strong and active organizations. The South District Society, which met in quarterly session at Boise last month, includes eligible members from sixteen counties, some of which furnish none and others a single member. The total membership is seventy-six. The recent meeting was well attended, twenty-nine being present at the banquet.

Such a plan is to be commended, for districts of other states in the Northwest, where county societies are considered impracticable on account of the small number of available physicians. The Washington association might be made to include more than the present thirty per cent of the physicians of the state, if those from thinly populated, contiguous counties would thus get together and form district societies to include all of like mind and purpose. We heartily recommend the inauguration of such a movement outside of the more populous counties.

MEDICAL NOTES.

The A. M. A. Visitors in Seattle and Tacoma. Several special trains for physicians, on the way to Portland, will stop at Seattle and Tacoma for portions of certain days early in July. Other visitors are expected to return by these cities on the way East. Committees have been appointed by the King and Pierce County Medical Societies which are arranging plans for entertainment, that the attractions of Puget Sound and its cities may be displayed to the best advantage. Details of these arrangements will be mentioned in our next issue. For the present assurance is given that it will be worth the while for the visitors

to linger as long as possible in these cities and that they will be well cared for.

Fifth Biennial Report of State Board of Health. This report of the Washington State Board of Health is a document of interest. It shows that more careful attention is being paid to the public health than at any past period. In March, 1903, but four counties had health officers. Now every county has one and they report promptly to the Board of Health any outbreak of contagious disease. There was a very marked decrease of small pox in 1904 over the previous year, while scarlet fever showed a decided increase, and diphtheria a great increase in the same period. These latter facts are explained by more complete returns during the latter year and to the vigilance of the county health officers. It is stated that typhoid is the cause of more sickness and death than any other communicable disease except tuberculosis, causing about one-twentieth of all deaths in the state. Tuberculosis, as in all other states, heads the list of fatalities. Comment is made on the failure of physicians to comply with the law requiring a report of typhoid and tubercular cases. It is felt that, if this were done, some results might be possible in checking their ravages. A plea is made for an appropriation by the state for establishment of a bacteriologic laboratory. The necessity of this is especially clear for diagnoses in typhoid and diphtheria.

The following figures are of interest. Total deaths for 1904, 4161, a gain of 374 over 1903. The largest totals for 1904 are, tuberculosis, 470; heart disease, 401; pneumonia, 332; typhoid, 200. Suicides numbered the same in both years, 77.

Intestinal Parasites. A series of twelve illustrations of the intestinal parasites has been issued by Battle & Co., of St. Louis., Mo. They will be sent free on application of physicians.

Gaillard's Southern Medicine. This is the new name of an old journal, or rather the somewhat recent combination of two long-established journals, *Southern Medicine* and *Gaillard's Medical Journal*. Its home is Savannah, Ga. Its forty years of life is proof of its usefulness and firm hold upon its constituency. We wish it another equal period of prosperity.

Forty Years of Business Life. Frederick Stearns & Co., in the quarterly issue of *The New Idea*, present many interesting facts concerning their half-century of existence, showing the development of a great pharmaceutical house from small beginnings. One of the most instructive departments is that describing, with many illustrations, the production of diphtheria antitoxin and the method of its standardization, giving a clear description of the whole process.

CORRESPONDENCE.

PURE MILK IN TACOMA.

To the Editor:

The following is a description of the work recently done in Tacoma, to improve the quality of milk delivered to our citizens:

At the meeting of the State Medical Association, held in Seattle last year, a committee was appointed to improve the condition of the milk supplied to the cities throughout the state. The members appointed from Pierce County were Drs. G. S. Hicks and L. L. Love. This committee inspected a number of dairies in the vicinity of Tacoma last fall, drew the attention of the dairymen and of the people to the need of radical reform in the production, care and marketing of milk. On one occasion, when it was found by the Tacoma Health Commissioner that typhoid fever was being spread through one dairy, the source of infection was carefully traced to the home of an Indian one-half mile above this dairy; this and all other dairies situated along the same stream were visited and the owners furnished with printed circulars as to what they must do, under the circumstances, to protect the public health. As soon as it was made clear to these dairymen, that the committee was interfering, not with the object of hurting their business, but to help them, no difficulty was experienced in having every suggestion and regulation of the committee carried out.

The work of the committee of the State Medical Association made it very evident that a long-continued and vigorous campaign must be carried out in order to bring clean, fresh and wholesome milk into the city market and that it would be an equally difficult and arduous task to educate the public to a realization of the increased cost and the increased value of such milk.

Accordingly, on Feb. 9, a permanent Committee on Clean Milk was appointed by the President of the Pierce County Medical Society, to co-operate with the State Medical Association to improve the condition of the Tacoma milk supply, and to formulate a plan for placing on the market, "certified", and other grades of milk. This committee consisted of Drs. James R. Yocum, J. J. Corliss and Wm. McCreery.

The Milk Committee was fortunate in having the assistance of Dr. Rose Bebb, whose work along this special line in New York City is well known and recognized, and whose recent work on the milk supply in Spokane attracted a great deal of attention and is bringing about much permanent good.

On the 18th of March, 12 samples of milk were bought by the members of the committee from various carts, just as it was being sold to the consumer. The bacterial count of these 12 samples ranged from 1,500,000 bacteria per cc. down. The rather premature report in the daily press of this work resulted in a very material change in the quality of samples obtained later, but even these showed the need of a radical improvement of the milk supply. The committee next visited a number of dairies and found that, while the visits last fall

of the State Committee, had done a deal of good, there still was much to be desired in the conduct of the dairies.

Dr. S. B. Nelson, State Veterinarian and member of the State Board of Health, came to Tacoma and assisted the committee very materially by visiting a number of the dairies, making a personal inspection of each and giving each dairyman advice as to what change he should make in the work of his plant; also, on two occasions, Dr. Nelson addressed dairymen's meetings held in the city, under the auspices of the Milk Committee, which were attended by 35 to 40 dairymen. The latter, realizing that the committee would help them in every way in its power to improve their business, showed great interest in what was advised and suggested by Dr. Nelson.

These meetings of the dairymen will be held from time in the near future and a number of the dairies will be visited by the committee and by Dr. Nelson. The dairymen also brought to the committee's attention the fact that the public needed instruction in the care of milk after its delivery in houses, stores and restaurants, an educational campaign in which the daily press is now giving very valuable aid.

The committee, following the plans adopted by other cities, have drawn up requirements for the production of two grades of milk which, when produced according to requirements and coming up to the standard specified therein, may be stamped by the copyrighted seal of the committee when offered for sale as. "Certified," and "Specified", milk, the former to contain not more than 20,000 bacteria per cc., and the "Inspected" not more than 100,000 per cc. The dairymen wishing to use these seals must live up to the printed requirements, will hold their dairies subject to inspection by the committee and furnish samples of milk at least twice a month, which will be counted by Dr. Rose Bebb at the laboratory. Of course these cleaner, fresher and better grades of milk will sell at higher prices (viz, 10 and 7½ cents per quart) than the ordinary milk of the quality now sold for 5 and 6 cents per quart. These grades of milk will be on sale before May 1st, and it is hoped that through them the infant mortality rate of this county will be materially lowered during the coming summer.

J. R. YOCUM, M. D.,

Tacoma, Wash.

Chairman.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. H. Lyons, M. D.; Secretary, C. H. Thomson, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce on the evening of April 3, President Lyons being in the chair. Forty-seven members and visitors were present.

The Laboratory Committee presented its quarterly report, showing money on hand, which was referred to the committee for improvement of laboratory equipment.

CLINICAL CASES.

Neuro-paralytic Keratitis. H. Stillson presented a man who had at one time been treated for erysipelas. The doctor found an area of anesthesia over the forehead, anesthesia of the cornea and some ptosis. Foreign particles in the eye produced a violent keratitis. Hyopion appeared and the cornea sloughed off in layers. There is improvement at present.

The doctor presented a young man who had an abscess under the cartilages of the left ear which reappeared after curetting and incision, but finally disappeared. Recently a similar condition has started below the other ear. He queried whether it could be tubercular.

Fracture of Lower Jaw. E. H. Stanley, D. D. S., presented a patient who appeared before him with a fracture of three weeks duration, at the site of the lateral incisors, who had been unsuccessfully treated by several physicians. He explained the ingenious dental splint applied, made of wire and so adjusted as to hold the jaw with absolute firmness.

PATHOLOGIC SPECIMEN.

Tubercular Glands of the Neck. P. W. Willis exhibited a chain of glands removed from the neck by the method of Mitchell, and explained the technic by which the whole area beneath the sterno mastoid was disclosed by a quadrelateral flap and a radical dissection made of the glands, the nerves being avoided.

H. Stillson emphasised the danger of injuring nerves and the necessity of early removal when the extent of infection is limited.

H. M. Read declared the futility of attempting to eradicate the disease without plenty of room. He described the features of operations he had witnessed at the hands of Mitchell who, when necessary, had ligated the internal jugular and removed one or both sterno mastoids with no bad results. With this technic the phrenic nerve can be easily avoided.

J. E. Harris mentioned the S incision of Senn, which gives abundance of room. He favored dissection by aid of gauze, by which there is less likelihood of tearing vessel sheaths.

PAPERS.

Rheumatism of Childhood. W. C. Hastings read this interesting paper, stating that this disease is more frequent than usually supposed. He called special attention to tonsillitis, growing pains, chorea and hyperacidity of the urine as indicative of rheumatism. The usual joint pains and fever may be wanting. If one has not this condition in mind, a marked endocarditis may be the first intimation. He advised absolute rest in bed and the exhibition of the salicylates and oil of wintergreen.

The paper was discussed by Drs. McCulloch, Sweeney, Calhoun, Russell, Holmes, Willis and Smith.

Observations and Deductions from an Experience in a Frontier Practice. G. Lewis read this paper, dealing with experiences in Alaska. He described the crude preparations for an abdominal section, yet followed by successful recovery. He thought a refinement of detail is followed in the practice of aseptic surgery that warrants the term "gross clean-

liness," and that good results can be obtained without resorting to all the customary details of preparation for operations. He believed that, in case of amputation of the foot of a laboring man, it is better to amputate in the upper third of that leg, thereby permitting the use of a peg leg and getting rid of a long and cumbersome stump. He also thought, in operating on diseased ovaries, it is preferable to remove all rather than a part, because it is impossible to recognize the line of demarcation between normal and diseased tissue.

The paper was discussed by Drs. Sweeney, Randell, Peterkin and Miles.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of April 17, President Lyons being in the chair. Forty-eight members and visitors were present.

Drs. S. J. Stewart and R. Bentley were elected to membership.

The committee on entertainment for visitors to the A. M. A. at Portland gave a preliminary report, outlining the proposed plan of entertainment. A complete report was promised for the next meeting.

CLINICAL CASES.

Ichthyosis Linguae. J. W. Ames presented a patient and gave his history. He was a soldier from Fort Lawton, age 30. Had syphilis 5 years ago and has been under treatment since last fall. The lesion began as a tessellated inflammatory lesion of the tongue. The organ is swollen and thick, painful to touch and on eating. The disease has extended to the lips. A section from one of the latter showed papillae dipping down into the connective tissue and small, round cell infiltration. It is not malignant. The case has been treated to the limit with K I and Hg. Nitrate of silver stick has been applied. There is no improvement.

A. Raymond said this reminded him of a case seen 15 years ago, of uncertain diagnosis, supposed not to be malignant. The man died recently of epithelioma. He thought it a case of leucoderma and that chromic acid should be applied.

L. H. Redon said it was a case of ichthyosis linguae and gave the points of diagnosis, especially in differentiation from leucoderma.

PATHOLOGIC SPECIMEN.

Tumors of Brain. A. Raymond exhibited the brain of a 6-year-old girl whom he first saw a year and a half ago. Then she was totally blind, but presented no other symptom. She had no pain, vomiting or paresis. Examination of the fundus showed optic atrophy. About six months ago speech became obscure. She would mechanically repeat words spoken to her. In February she developed pain in the head. She died in convulsions about two weeks ago. There are two tumors at the base of the brain. One encloses the optic chiasm and extends upward between the hemispheres. The other is beneath the medulla and anterior to the cerebellum. Sections have not yet been made of them.

PAPER.

Metabolism. W. M. McDowell read this paper. He stated that normal health demanded a stable condition of metabolism, depending

upon proper amounts of suitable articles of diet. Disease is caused by a disturbance of metabolism. This is true regardless of the influence of microorganisms. But when this condition obtains the latter find an opportunity for activity and the production of results. Carcinoma and tuberculosis are caused by perverted metabolism, induced by the ingestion of an excess of carbohydrates. A diet of potatoes is the direct cause of tuberculosis. The doctor stated he had succeeded in producing a papillomatous growth by this form of diet. He said that investigations along this line had not been encouraged by the authorities, but he was confident it would be proven to disclose the mysteries of disease..

C. A. Smith criticised the paper on the grounds that no proof was offered to confirm any statements presented. It is not difficult to adduce a new theory of disease but, to expect its acceptance, one must furnish convincing proof of its truth. While the doctor's theory might be valid, it could be received only as a matter of interest unless further supported.

Drs. Peterkin and Ostrom spoke in a similar vein.

WHATCOM COUNTY MEDICAL SOCIETY.

President, F. J. Van Kirk, M. D.; Secretary, W. N. Hunt, M. D.

The Whatcom County Medical Society met in regular monthly session April 10, with President Van Kirk in the chair.

The Executive Committee reported the program for the remainder of the year and stated that for the next regular meeting they had been promised a paper by Dr. J. B. Eagleson, of Seattle.

PAPER.

Pleurisy. The paper of the evening was presented by Dr. Jacob S. Smith, on the subject of pleurisy. Special attention was given by the writer to the clinical aspects of the disease and to the different methods of treatment. The paper was discussed by Drs. A. M. Smith, Reed and Johnson.

PATHOLOGIC SPECIMEN.

Sarcoma of Testicle. Dr. Kirkpatrick presented a specimen of a testicle recently removed on account of a very rapid increase in its size, presumably due to a sarcomatous degeneration. The doctor stated that a microscopic examination would be made and the findings reported later.

Adjourned to meet May 8.

SOUTH IDAHO DISTRICT MEDICAL SOCIETY.

President, H. A. Castle, M. D.; Secretary, E. W. Klineman, M. D.

The quarterly meeting of the South Idaho District Medical Society was held in the Council Chambers, at Boise, April 6.

The following program was presented:

PROGRAM.

Call to order by the President.

Quarterly report, by the Secretary-Treasurer.

Report of Committee on State Board of Health.

Appointment of Committee on Applications.

Reception of fourteen new members.

PAPERS.

Treatment of Acute Lobar Pneumonia, with Report of Treatment in Thirty-seven Cases without Mortality. By Burdette O'Connor, Mackay. Discussion opened by C. L. Sweet, Boise.

Study of the Blood in Pneumonia. By J. L. Stewart, Boise.

Review of the Vital Statistics of Boise for the Past Three Years. By Ed E. Maxey, Boise.

Salivary Fistula, with Report of a Case. By L. P. McCalla, Boise. Discussion opened by L. C. Bowers, Boise.

Primary Repair of Laceration of the Pelvic Floor. By H. A. Castle, Pocatello.

Discussion opened by J. M. Taylor, Boise.

Unannounced papers and reports of cases.

The following officers were elected for the ensuing year:

President, J. L. Stewart, Boise.

Vice-President, J. H. Bean, Pocatello.

Executive Committee, J. C. Woodward, Payette; O. W. Hall, Star.

It was voted to omit the July meeting in favor of the meeting of the American Medical Association, at Portland. The October meeting will be held with the Idaho State Medical Society, at Boise, October 5 and 6.

A banquet was held at the Idanaha Hotel, which was attended by twenty-nine members.

BOOK REVIEWS.

Edited by

KENELM WINSLOW, M. D.

A Text-Book of the Practice of Medicine. For Students and Practitioners. By Hobart Armory Hare, M. D., B.Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia; Physician to the Jefferson Medical College Hospital; Laureate of the Royal Academy of Medicine in Belgium and of the Medical Society of London. Author of *A Text-Book of Practical Therapeutics*; *A Text-Book of Practical Diagnosis*, etc. In one very handsome octavo volume of 1120 pages, with 129 engravings and 10 full-page plates in colors and monochrome. Cloth, \$5.00, net; leather, \$6.00, net; half morocco, \$6.50, net. Lea Brothers & Co. Philadelphia and New York, 1905.

One cannot but admire the literary energy of a busy practitioner and teacher of medicine who has edited in turn the *Therapeutic Gazette*, a *System of Therapeutics*, and *Progressive Medicine*, while—at the same time—writing such extensive works as *Hare's Diagnosis* and *Hare's Practical Therapeutics* and now this still larger and more comprehensive treatise, under review, on the *Practice of Medicine*.

We have, then, another aspirant for companionship on our shelves by the side of our precious Osler, Struempel, and Tyson. While comparison may be invidious, it need not be. None of us fail to mentally make comparisons so why should one not make them in print. Osler's work is peculiarly filled with his own genius for a terse and epigrammatic style and he possesses in a wonderful degree the power to ex-

tract the essence of things medical—in the past and present. He preserves and reveres the classic in medicine and gives us one of his own. Struempel is admirable in detail; no finest clinical sign or symptom escapes him, and his description of disorders of the nervous system is unrivalled. Tyson expresses less of the purely scientific in medicine but more of the clinical atmosphere of the experienced and enlightened practitioner who believes in many remedies—and not a few drugs. Hare's new *Practice of Medicine*, it seems to us, reflects essentially present-day American Practice, without being especially individualistic in style, teaching or convictions. It is a very complete, comprehensive, safe and progressive work. If one would pick out any specially good feature, the care bestowed on the details of treatment might be given first mention.

One is struck with the new diseases, many of a tropical origin, which are creeping in to further distend the student's brain. Major Kieffer, U. S. A., writes the section on tropical disorders. One indeed finds very adequate accounts of many of the less studied diseases which are given but scant space in many text books as, e. g., Tick Fever, Epidemic Gangrenous Proctitis, Hill Diarrhea, Malta Fever, Nasha Fever, Madura Foot, Foot and Mouth Disease, Japanese River Fever, Kala-Azare Frambesia, Verruga Peruviana and Kubi-sagari. The illustrations are generally appropriate and not simply for effect. We think that the book is worthy to be added to our necessary armamentarium, as expressing clearly, authoritatively and completely the latest word on the practice of medicine in an American text book. WINSLOW.

International Medical Annual, pp. 644, 30 stereoscopic plates and 54 diagrams. Cloth, \$3.00. E. B. Treat & Co, N. Y.

This annual is noted for its being the most compact and cheapest work of excellence upon the progress of medicine and also, perhaps, the easiest of reference, owing to its alphabetical arrangement. It is unnecessary to introduce the Annual to our readers as it is now in its 23rd years of usefulness. While one might expect an increase in its corporosity at this mature age, one is hardly prepared to see growth in height, and yet this is what has happened to this volume, to accommodate is growing viscera. It contains its usual judicial digest of the year's important literature. The editors are men eminent in their several specialties and their names alone guarantee the value of their departments. The section devoted to Therapeutics includes chapters dealing with Serum-therapy, Organo-therapy, Intravenous Medication, Radio-activity and Electro-therapeutics. All of these are well written, brimming with information. The special articles are valuable, especially those on Dislocations, Fractures, the Prostate, and Tendon-transplantation. In its entirety the Annual is to the busy practitioner a worthy book of ready reference and merits a wider circulation.

STURGIS.

Progressive Medicine, Vol. 1, March, 1905. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 298 pages, 10 engravings and a full-page plate. Per annum, in four cloth-bound volumes, \$9.00; in paper binding, \$6.00,

carriage paid to any address. Lea Brothers & Co. Publishers, Philadelphia and New York

This number of this valuable periodical is quite up to the standard of its predecessors and deals with the following important subjects: Surgery of the Head, Neck and Thorax, by Charles H. Frazier, M. D.; Infectious Diseases, including Acute Rheumatism, Croupous Pneumonia and Influenza, by Robert B. Preble, M. D.; The Diseases of Children, by Floyd M. Crandall, M. D.; Laryngology and Rhinology, by Charles P. Grayson, M. D., and Otology, by Robert L. Randolph, M. D. Each of the above named subjects is carefully gone into with review and comments upon the advances and progress of the past year. One cannot fail to be impressed by the concise form in which this matter is presented. Cranial Tumors and Surgery of the Cranial Nerves receive considerable attention. The danger of lumbar puncture in brain tumors is emphasized. The surgical treatment of Goiter and also for Graves' Disease is reviewed. Contributions upon surgery of the heart receives attention. Infant feeding and children's diet comprise much of the subject matter in the chapter on Diseases of Children. The importance of keeping milk below 60° is emphasized. New York city now requires this standard. The serum treatment of hay fever is taken up under Rhinology and Laryngology and its absurdity summarily dealt with. The author is inclined to encourage the use of antidiphtheritic serum in treatment of ozena.

LAZELLE.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR FEB., 1905.

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Adams	0	0	3	0	3	0	0	0
Chehalis	0	0	1	0	0	0	0	0
Chelan	0	0	3	1	0	0	0	0
Clarke	0	0	1	0	0	0	0	0
Douglass	0	0	5	0	0	0	0	0
King	0	0	10	1	4	0	7	0
Mason	1	0	1	0	0	0	0	0
Pacific	0	0	0	0	0	0	1	0
Pierce	0	0	2	0	2	0	0	0
Snohomish	2	0	5	0	4	0	1	0
Spokane	0	0	4	0	2	0	0	0
Thurston	0	0	2	0	5	0	0	0
Walla Walla	0	0	0	0	1	0	3	3
Whitman	0	0	3	0	0	0	0	0
Yakima	0	0	0	0	13	3	0	0
Bellingham (City)	0	0	4	0	2	0	0	0
Seattle (City)	0	0	18	0	16	2	1	0
Spokane (City)	0	0	4	0	16	1	1	2
Tacoma (City)	0	0	11	0	2	0	1	0
Total	3	0	77	2	70	6	15	5
March, 1904	40	0	144	6	96	9	35	9
Total 1905	6	0	228	5	244	22	54	16
Total same period 1904.....	132	1	434	20	298	38	165	38

ELMER E. HEG, Secretary.



GIDEON ALLEN WEED, M. D.
1833-1905



RUFUS WILLARD, M. D.
1836-1905

NORTHWEST MEDICINE

June, 1905

ORIGINAL CONTRIBUTIONS.

PRIMARY REPAIR OF LACERATIONS AND INJURIES OF THE PELVIC FLOOR.*

By H. A. CASTLE, M. D.,
POCATELLO, IDAHO.

This subject, which I have chosen to present to you for your consideration, is doubtless one of the most important and interesting subjects of obstetric science and art. It is *important* because of its great frequency and from the fact that about fifty per cent. of the gynecologic work done on women after labor is due to the remote results of injuries and lacerations received by the woman during her child birth. It is *important*, because of the thousands of wrecked female lives that follow in its wake every year throughout the world. The suffering, ill health, and chronic invalidism due directly to this primary cause alone, make it a study of vast importance to the accoucheur or others who attend women during parturition.

The curative treatment being essentially surgical, this subject properly belongs under the head of obstetric surgery or operations. Parturition being the sole cause, practically, of injuries and lacerations to the pelvic floor, it is essentially an obstetric problem.

The principal factors at childbirth which are causative of lacerations of the pelvic floor are, relative disproportion between the presenting part of the child and the pelvic outlet, too rapid expulsion, faulty mechanism, and unskilled instrumental delivery.

Frequency of occurrences. It is a well established fact that injuries to the birth-canal are very frequent, and that even under the care of the most skilled management they cannot always be avoided. All authorities agree that these injuries occur much oftener in primiparous than multiparous women. While statements as regards frequency vary considerably, reliable statistics from well conducted maternities and hospitals, place the frequency at about thirty per cent. in primiparae and about ten per cent. in multiparae.

If such frequency of occurrence is reported from reliable statistics of maternities and hospitals, what must be its frequency among the women delivered by numerous midwives and untrained irregulars of the profession? Certainly these figures are too conservative, for they only represent those of hospitals and maternities where prophylaxis of these injuries is intelligently managed. Of all traumatisms, occurring during labor, perineal lacerations (so called) are the most frequent.

Character of injury. Perineal tears, in the great majority of cases, commence at the fourchette and run up in the vagina, on one or both sides of the rectum, that is, extend up one or both vaginal sulci. Where both sulci are involved, a "Y"-shaped lesion is produced. The entire pelvic floor may be torn through and the rectum opened up, constituting complete laceration.

Degrees of laceration. For convenience of description perineal tears have been broadly divided into three groups, representing the degrees of injury to the pelvic floor.

First. Superficial tears extending from the fourchette into the mucous membrane and skin of perineum.

Second. Tears down to the sphincter ani.

Third. Into the rectum.

Injuries to the pelvic floor present many varieties and are classified in various ways. While it is probable that the only scientific classification would be one based on anatomic structure involved, I find but one authority (J. Clifton Edgar) who has attempted the same, most text books adhering to grouping in the crude old way.

Lacerations of the first and second degree may be unavoidable, but if complete tears occur frequently in the practice of anyone it is an indication of either carelessness or ignorance.

It is an exceedingly important branch of pelvic troubles and if scientifically treated primarily, its remote results can usually be effectually and easily remedied. It is a very interesting study, owing to the various and varied opinions held by numerous clinical observers who have delved into its mysteries and perplexities.

To correctly understand this subject, anatomic data is a "sine qua non." An intimate knowledge of the structure of the pelvic floor is of course essential to the proper study of these traumatisms. This can best be done by careful dissections or by a study of the labors of those who have made an exhaustive anatomic study of these structures. It will be necessary, therefore, in this brief article to generalize.

The pelvic outlet is closed, principally, by a diaphragm of muscles and fasciae which is attached to varying points of its circumference and united in the median line. The integrity of the several groups of muscles and fasciae is requisite, in order to support the pelvic organs which lie above.

While the function, form, origin, and insertion of some of these muscles are in dispute, certain it is that collectively they act as barriers to any undue downward motion of the overlying pelvic organs and thus assist in their normal support. The pelvic diaphragm is a closed floor except for three canals that pierce its structure—urethra, vagina and rectum.

The fascial attachments of the muscles of the pelvic floor are peculiar and characteristic—one or both ends having extensive fascial attachments. The reunion of these muscles by means of their fasciae is, doubtless, the chief factor in successful primary and secondary colpoperineorrhaphy. In order to understand the principles upon which all repair work of the pelvic floor is based, a critical study of the following muscles is requisite—levator ani, coccygeus, pyriformis, transversus perinei, bulbo-cavernosus, and sphincter ani externus.

The fasciae of importance are—levator ani superior and inferior, triangular ligament, deep layer of the superficial fascia and the ischio-perineal ligament.

The success or failure of all repair work done on the pelvic floor must forever rest upon scientific surgical principles. An anatomic basis is the only scientific foundation for all surgical procedures and it is, therefore, necessary that all anatomic structures involved be accurately restored to their normal positions, for union by first intention to take place.

The day has gone by when the medical attendant can conscientiously tie the knees of his obstetric patient together and hope that Nature will repair the grave traumatism of labor. True, sometimes, quite extensive tears of the parturient tract heal spontaneously and it is possible, too, that unhealed ruptures may not greatly affect the health where they exist. But the physician has not done his whole duty to his patient who willfully neglects to give her all the advantages that science affords.

Neither does a medical man do justice or honor to his confiding patient or the profession he represents when he carelessly places a few superficial skin sutures and neglects to carefully repair the very part of the wound that is likely to jeopardize her health and life.

The pelvic floor is a musculo-fascial support for the pelvic viscera and its function is to resist interabdominal pressure and allow rectal and vesical function. While the muscles are very important factors in all perineal tears, the significant importance of the pelvic fascia is still more apparent. The chief element in maintaining perineal muscular relations is the pelvic fascia and the lesions of the perineum which disable and discomfort the woman are chiefly lacerations of the fascia and secondarily of the muscles.

Pelvic floor lacerations. "Perineal lacerations" is the term usually employed to denote injuries and lacerations of any or all of the pelvic floor. It will thus be seen to be a very unscientific term and an anatomically incorrect designation. But as injuries to the vagina, rectum and perineum frequently occur together and combination repair operations are required for their correction, it is probably most convenient, clinically, to consider them together under three degrees. *First degree:* It is well known that primiparae quite frequently suffer rupture of the fourchette and the extension of the tear in the fourchette to the superficial structures of the skin and mucous membrane constitutes the first degree of laceration. These are the superficial vaginal or perineo-vaginal lacerations. *Second degrees* These lacerations extend more deeply in to the pelvic floor than the first degree tears, even down to the sphincter ani muscle. They may be vaginal or vagino-perineal tears. The skin surface of the perineum may or may not be torn. The tear may be entirely intravaginal and involve one or both sulci and still be unsuspected unless vaginally examined for. Hence the necessity of careful examination. *Third degree.* This is a complete rupture of the pelvic floor—the true vagino-perineo-rectal laceration. The entire perineal body, the skin surface of the perineum, the various muscles and fasciae of the pelvic floor, the anal sphincter and rectum are lacerated and a cloaca is formed into which rectum and vagina open. A few cases of central perforation have been reported but it is a rare form of parturient injury.

A form of pelvic floor injury that occurs not infrequently is the "submucous variety," due to a tear of the levator ani muscle. In this form of injury no external wound or appreciable lesion of the vagina exists; the muscle has simply become overstretched or ruptured, allowing various grades of ptosis of the pelvic viscera. It occurs most frequently in difficult and prolonged labors, where marked rigidity of the perineal structures is present and the head or other presenting part has laid long on the pelvic diaphragm, thus overdistending the muscular fibers. Marked relaxation of the

vaginal outlet is the remote result of this form of injury and operative procedures are often demanded years after the original injury, to procure relief from the long suffering and chronic invalidism.

While many authorities state that superficial tears of the fourchette need no other attention than simple asepsis, it is more in harmony with scientific teaching to close by suture all lacerations, no matter what the degree. Tears of even half an inch may become infected and are much safer closed. Modern surgical principles demand the closure of all pelvic floor lacerations, that may become a menace to the health or life of the puerperal woman.

The immediate dangers of unrepaired wounds are sepsis and the formation of a sensitive scar tissue that often becomes exceedingly painful. The ultimate results of unrepaired, complete laceration form a chapter in general and special pathology that is both difficult to understand or describe. The vicious circle started by those serious pelvic lesions gravely and seriously affect health and life, both mentally and physically. Aside from the physical, there are nervous reflex phenomena that are protean and multiple in their manifestations.

An immediate repair of all pelvic floor lacerations is demanded, therefore, unless the patient's condition is so serious as to forbid all operative procedures, or the attendant is unprepared or needs skilled assistance. Under these circumstances the operation may be delayed twelve or twenty-four hours, asepsis being maintained and successful results accomplished.

General considerations. It is important that asepsis be employed but chemical antiseptics are not needed. Irrigation of the operative field with saline solution and a sponging with sterile gauze will make inspection satisfactory. The extent and character of the laceration can probably be best determined by bringing the torn parts into apposition by means of a tenaculum.

All surgical procedure, to be successful, demands an anatomic basis and it is necessary to exactly approximate all the torn tissues in their normal relative positions. Tags and bruised ends of tissue should be removed. Deep suturing and not allowing the needle to appear in the wound prevents pockets or dead spaces, where stagnant secretions can collect.

Instruments and accessories. Needle holder, assorted curved needles, suture material, scissors, speculum or retractor, tenacula, obstetric pad and irrigator.

Suture material. Silk, silkworm gut, catgut, or silver may be used as sutures. Ordinary catgut is very useful in closing super-

ficial tears, as it does not require removal. For vaginal or buried sutures it is generally preferred. For deep suturing of more severe lacerations, where a large amount of tissue is to be embraced, silk worm gut is a favorite with most operators. As additional advantages it is easier to handle than silver wire, sufficiently strong, and ten or fifteen minutes boiling renders it easily aseptic and reliable. Silk is more liable to infect than silkworm gut, as it absorbs lochial secretions and retains it, thus favoring infection of wound.

Operation. The lithotomy position, with the patient's hips drawn well over the edge of the bed, on an obstetric pad, is the position usually adopted by operators. The upper vagina should be packed temporarily with sterile gauze, to prevent the flow of blood over the field of operation and allow a careful inspection and enable the operator to see what he is doing. Slight superficial tears require no anesthesia, owing to the tissues being benumbed by the pressure of labor. In deeper wounds of the pelvic floor requiring careful suturing, it is better to administer an anesthetic. As the patient is already partially anesthetized at this time it is well to continue the anesthetic and thus lessen the amount to be administered. It is a good plan to introduce the sutures while waiting for the expulsion of the placenta and leave them untied till the after-birth is expelled. This is quite a saving of time and the sutures can be more painlessly introduced.

Operative methods of repair differ, of course, according to degree of injury, that is, whether or not the laceration involves only superficial tissues or perineal body or is complicated by deep tears of vagina or rectum.

Tears of the first degree, which extend through the perineal body, are quite generally closed from above downward, by deep interrupted sutures of silkworm gut, reinforced, if needed, by superficial sutures of catgut.

Experienced operators emphasize two salient points of great importance in this mode of repair: First, sutures should be introduced and emerge at a considerable distance from the edges of the wound, in order to prevent them from tearing out by the swelling and edema which so often rapidly follow the placing of sutures. Second, sutures should be carried well down under the base of laceration, the needle not being allowed to appear in the wound. The sutures should be tied very loosely and left long so they can be twisted and knotted together to prevent local irritation. Superficial sutures may be used to coaptate surfaces not sufficiently ap-

proximated by the deep suturing. Nearly all authorities state that the wound should be coaptated, *not constricted*. A curved needle, large enough to make the entire sweep at one movement, is preferred by most operators. Superficial perineal or perineo-vaginal lacerations are easily repaired, the operation being quite simple. Neither needle holders nor retractors are needed as the wound does not extend up far in the vagina and the labia can easily be separated by the fingers of the left hand and rapidly closed from above downward by interrupted sutures. Two or three sutures for vagina and the same for the perineum are usually all that is needed.

Second degree. Here a vaginal retractor and tenaculum are usually needed, the retractor to support the anterior vaginal wall and the tenaculum to hold the lacerated parts in their normal position until sutured. It is usual to repair vaginal tears from above downward and of course, if both sulci are involved, they should both be sutured carefully and the vaginal and perineal wounds closed in the usual manner. Care should be taken that the posterior column of the vagina, which is so often bruised and detached from below upward, is left in its normal position. All authorities caution the necessity of "lifting up" the lower portion of the wound by its sutures, so that the normal relative positions of tissues may be exactly approximated. The Emmet suture accomplishes this, or what is better, a suture which is passed deeply, well under the base, not entering the wound at all and forming a perfect circle and made to include considerable tissue and tied loosely, will usually be quite satisfactory.

The upper angle of the tear being closed, the sutures below must be so deeply placed that they grasp the torn ends of the muscles and fascia of the lateral walls and exert a definite lift or elevation to the pelvic floor. Care should be taken not to enter the rectum. After closing up the tears running up the lateral walls of the vagina, along side of the rectum, but little denuded surfaces will be left in second degree lacerations and this can be closed with a single purse string suture, or two or three interrupted sutures.

Third degree. Complete laceration of the pelvic floor are so deplorable and unfortunate that immediate repair is especially important. Two retractors are needed (one on each side) to expose the field of operation. The rectal wound should be first carefully repaired from above downward by interrupted sutures of silk or fine catgut about 1-6 inch apart. The needle should enter about 1-5 to 1-4 inch from the margin of the tear and take in enough tissue of recto-vaginal septum to not tear out when tied. If catgut is used,

they may be cut short in rectum, but silk worm or non-absorbable sutures should be left long and hanging out of anus. The anal sphincter is better united by two or three extra fine catgut sutures.

Where the sphincter is completely torn and its ends retracted, the ends should be temporarily drawn together with tenacula before stitching and it is well to reinforce the suturing of the muscle ends by one or two sutures of silk or silk worm gut passed deeper in the muscles and out through the external skin above the angle of laceration, thus transfixing the sphincter muscles on both sides.

After treatment. The aseptic technic of labor especially applies after all injuries to the pelvic floor. The repaired wounds should be kept clean and covered with sterile dressings. When the dressings are changed and after urination and defecation, the parts should be washed with a weak sublimate solution (1 to 5000.) Later boric acid or salt solution answers well for washing the parts. The routine and continuous use of antiseptic powders is not indicated, as healing occurs equally well under the usual obstetric asepis.

In unruly or restless patients or those not yet from under the anesthetic, it is well to loosely bind the knees together, otherwise it is unnecessary. Catheterization should be avoided if possible. Of course retention of urine demands its use but there is no harm in urine passing over the wound if it is subsequently cleaned. No postpartum douches should be used if the lochia remains normal. External sutures should be removed about the tenth day and vaginal sutures a few days later.

In lacerations of the first and second degree the bowels may be moved daily but in complete tears of the pelvic floor it is well to prevent them from moving for two or three days, when high enemas of sweet oil followed by castor oil or calomel by mouth will start the bowels moving safely.

The results of operations of the first and second degrees are usually quite satisfactory. The main points tending to secure primary union are approximation of the parts denuded and asepsis, introduction of sutures far enough from the margin of the wound to prevent the tension of swollen tissues from tearing out the stitches and being careful to tie sutures loosely so they will not constrict and produce pressure necrosis. Coaptation, not constriction, is required.

Primary repair operations for complete laceration of the pelvic floor are failures in at least fifty per cent. of cases. Those unfortunate cases should receive secondary operations before being discharged from medical care.

TICK FEVER, WITH REPORT OF CASE.*

By ROBERT M. STITH, M. D.,

SEATTLE, WASH.

Tick fever, Rocky Mountain fever, or Spotted fever of the Rockies, are the various names applied to a disease condition bearing all the marks of a clinical entity, prevailing at a certain season, March until July, and having the following geographical distribution: The west bank of the valley of the Bitter Root River in Montana, the narrow canyon of Rock Creek, twenty miles east of the Bitter Root, and at Bridger, four hundred miles east of the first named locality.

The disease also occurs in Idaho—along the valley of the Snake River and its tributaries. It has been reported in Wyoming and Nevada. A mild type has been seen in Eastern Oregon.

History. The disease has been known in Idaho for the past twenty years. The first case in the Bitter Root Valley, Montana, occurred in 1873. There is no record of the disease having prevailed among the Indians.

The first published report of the disease was by Dr. E. E. Maxey, his article appearing in the *Medical Sentinel*, in 1899.

In 1898, Maj. Wood, U. S. A., submitted to the Surgeon General a report of the disease.

In 1902, at the request of the Montana Board of Health, the disease was investigated by Drs. Wilson and Chowning, respectively bacteriologist and pathologist of the Minnesota State Board of Health.

In 1903, John F. Anderson, P. A. Surgeon, U. S. Public Health and Marine Hospital Service, was instructed to proceed to the Bitter Root Valley to investigate the so-called spotted fever, there prevailing.

Etiology. Wilson and Chowning, in their investigation, began with the idea of possible bacterial cause, which they failed to demonstrate. They did, however, find present in the blood a protozoan, which they suggested as a possible cause. The organism was intra-corpuscular, possessed ameboid movement, and was not pigmented; it resembled closely the organism of Texas cattle fever, except that it was slightly larger.

Anderson, in his investigation, demonstrated the same organism and also failed to find a bacterial cause. The protozoan, for which

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the name pyro-plasma hominis has been proposed, was found present in the blood of every case of this disease, and was not present in the blood of patients ill with other diseases, investigated by these gentlemen.

As all the hematozoa affecting warm blooded animals, whose life cycle is known, pass some stage of their development in some other host than the one whose blood cells they finally invade, and as the intermediate host is usually an insect or aracid, and, further, as the parasite found in the blood in this disease resembles the organism of Texas cattle fever, whose intermediate host is a tick, they thought it not unreasonable to suppose that some such intermediate host would be demonstrated for the parasite under investigation.

On investigating further Wilson and Chowning found the parasites abundantly in a tick, which Dr. C. W. Stiles, of Marine Hospital Service, identified provisionly as *dermacentor reticulatus*. They demonstrated the parasite in the prairie dog.

They also inoculated some of the blood containing the parasite into pigeons and rabbits. The pigeons gave negative results, but on the day following the injections and for fourteen days thereafter, the rabbit's blood showed the organism.

This discovery was in accordance with the facts as observed, namely:

1. The cases, while confined to a limited area, gave no suspicion of contagion, no two cases so far as known occurring in the same family.

2. Ticks are known to appear at the beginning of the season referred to—March—and to disappear by the end of July, covering exactly the period during which the disease prevails.

3. While malaria is conveyed by the mosquito, so far as known but one genus, the anopheles, harbors the plasmodium. Texas cattle fever is conveyed by only one genus of tick. Therefore, it is not unreasonable to assume that Tick or Spotted fever is conveyed by one genus of tick. Of genera of insects capable of transmitting the various blood parasites, not all individuals are infected. This explains the isolation of the cases and also the limited number.

4. All cases of this disease gave a history of having been recently bitten by ticks and in most cases the tick bites were still apparent.

Symptomatology. After an incubation period of three to ten days, during which there may have been some malaise and chilli-

ness. The disease is ushered in by a well marked chill followed by an elevation of temperature which reaches its maximum about the twelfth day. The temperature will then fall by lysis, reaching normal about the eighteenth day.

At the onset there is severe pain in the bones, muscles, back and joints. Prostration is marked and headache usually severe, these symptoms persisting more or less until the temperature falls. Constipation is usually present. Urine is scanty, high colored and contains a trace of albumin, and microscopically shows blood and granular casts.

There is a slight bronchial cough; the eyes are injected and the conjunctiva icteric. The skin also is more or less jaundiced, pulse is rapid and out of proportion to the temperature, the respirations are usually more rapid than you would expect from the slight bronchitis. The spleen is enlarged early. A slight leucocytosis, 8000-12000, is present. The tongue is thickly coated, may become dry and cracked; sordes appear early and may be pronounced. In severe cases there may be muttering delirium. In some respects the picture is much like typhoid, but the Widal reaction is always absent and cultures from the blood negative.

On the third day the eruption appears, showing first about the wrists, ankles and back. It then extends over the body, involving the abdomen last and least. Scalp, palms and soles are frequently covered with the eruption. The rash at first consists of rose-colored macules, which disappear on pressure but quickly reappear. They are sometimes tender to the touch. The macules, while early disappearing upon pressure, quickly become permanent and darker, in some cases almost purple; from the sixth to the tenth day they fail to disappear on pressure and are distinctly petechial. As the temperature comes down the eruption begins to fade, but a return of the fever or free perspiration will cause a reappearance. As the eruption fades there is slight desquamation. In severe cases there may be gangrene of fingers and toes, still more frequently of the skin of penis and scrotum. The spots may persist faintly for several weeks after recovery. Bleeding from the nose to a greater or less degree is usually present from the end of the first week.

Prognosis. Of the cases in Montana about eighty per cent. were fatal. In Idaho there were only about two per cent. fatalities, but the malignancy seems to vary from year to year.

Diagnosis. With a history of tick bites, in the districts above referred to, cases presenting, chill, fever, pain in back, head, and extremities, constipation and the characteristic eruption, should be

diagnosed as tick or spotted fever. According to Anderson, the following diseases present points of resemblance: dengue, cerebro-spinal meningitis, peliosis rheumatica and typhoid, but especially typhus fever.

Dengue prevails in tropical and subtropical countries. The joints are swollen, the eruption does not become petechial. The disease presents an apyretic period and a shorter course than tick fever.

Cerebro-spinal meningitis presents intolerance of light and sound and stiffness of muscles of neck and back; the rash is irregular.

Peliosis rheumatica is comparatively rare; there is multiple involvement of the joints, sore throat; the eruption is purpuric and urticarial.

Typhoid fever eruption appears first on abdomen about the seventh day; Widal reaction is present; blood cultures show typhoid bacillus.

Typhus has a longer incubation period; absence of the intra-corporal parasite; eruption appears first on abdomen and chest; it is markedly contagious; usually prevails during the winter months.

The Parasite. Is an ovoid, intra-corporal, non-pigmented, ameboid body. There are three forms:

1. The common form, a single ovoid, refractile, intra-cellular body, situated usually near the corporal margin; it is about 1.5-2 microns in length.

2. A larger form, 2-2.5 microns in length, larger at one end and showing a dark granular spot.

3. A form arranged in pairs, pyriform in outline, the smaller ends abutting. The organism stains best with Wright's stain, followed by Loeffler's alkaline methylene blue.

Treatment. Is usually symptomatic, after the discovery of the parasite. Anderson suggested the use of quinine bi-muriate one gram, hypodermically, every six hours, which practice has been successful in the few cases in which it has been used.

HISTORY OF A CASE OF TICK FEVER.

I have to report the following case which, so far as I am aware, is the first to be reported as originating in the State of Washington.

H. H. W., male, aged 37, white, residence, Moses Lake, Douglas County, Washington; occupation, cattle man.

Previous history. Nothing of interest except that he had measles when 13 years of age and typhoid at 19 years; no venereal history; he was successfully vaccinated one year ago.

History of illness. He came under my care the fifth day of

July and the third day of his illness. He gave the following history: For the past week he had been riding a great deal in the hot sun and three days before, while out riding, he was suddenly taken with a severe chill and pain in back, head and limbs. He was so prostrated that it was with considerable difficulty that he reached his camp. He thought he had been overcome by the heat. The pain in head and limbs continuing, and fever developing, his friends sent him to Seattle. While on the train the pain became so severe that a physician present administered morphia.

When I saw him, on the third day of his illness, his temperature was $103\frac{1}{2}^{\circ}$, pulse 120, respiration 36; eyes injected, conjunctiva slightly yellowish, tongue thickly coated, a slight bronchial cough, spleen palpable; a rather thick eruption of discrete rose red macules were present, on wrists, ankles, back and face; the macules disappeared on pressure.

In the days following the temperature reached 105° as the maximum. Spleen remained palpable; abdomen not distended and not tender. Constipation was marked, urine scanty, and specimen examined showed albumin with blood and granular casts. Leucocytes 11,000; Widal reaction negative on three occasions, on the 5th and 15th days, and during convalescence. The eruption became more intense, appeared last and least upon the abdomen; about the tenth day it became petchial; two months after recovery it was still present (faintly) about the ankles. He had slight bleeding from the nose on several occasions, all occurring after the tenth day.

Examination of his blood, on the tenth day of his illness, showed the ovoid intra-corpuscle parasites described by Anderson, present in the unstained specimen; later they were demonstrated in the stained specimen. On the eighteenth day of his illness the temperature began to fall, reaching normal on the twentieth day. Convalescence was slow.

INTESTINAL PARALYSIS.

By W. H. AXTELL, A. M., M. D.,
BELLINGHAM, WASH.

This condition occurs during the convalescence from protracted fevers, abdominal operation and prolonged labors. It is characterized by great distention.

Names. Many names are applied to this condition, but that particularly referred to here is the paralysis or inertia without any clinical evidence of intestinal injury or disease. Wyeth and Parks call it intestinal toxemia; Senn, dynamic obstruction; Douglas, paralytic obstruction and adynamic ileus, others entrosepsis, ileus paralyticus, septic enteritis, tympanitis. Kelly and Treves, in their surgery, mention it only as a source of annoyance in troubles such as mentioned above. Holt mentions this condition as a possible danger in intestinal trouble in children.

Definition. The definition is more of a description of a condition than defining of a separate and distinct disease. There is a complete annulment of peristaltic action; a distention of the large and small bowel, varying in degree; with or without elevation of temperature, temperature sometimes even subnormal, depending on the amount of infection; with or without vomiting; embarrassed respiration.

Cause. The cause is both mechanical and chemical (or reflex). Constipation, prior to the onset of the disease, the operation or confinement is probably one of the most frequent causes. The protracted elevation of temperature in fevers, the trauma of the bowel during operations on the abdomen and prolonged labors, undoubtedly set up fermentative and putrefactive changes in the contents of the alimentary tract and, by altering the intestinal walls, hold in check the normal secretions. Whether or not the fermentation and putrefaction are due to bacteria other than those of putrefaction I am not thoroughly convinced, but certain I am that many cases develop without apparent infection or even an elevation of temperature.

Parks says, "The exact toxic agency cannot be certainly indicated in a given case. Nevertheless it has been made plainer and plainer within the past few years that there is perhaps no condition which so predisposes to sapremia, septicemia or even pyemia as this vague condition of intestinal toxemia ***. I have long maintained that many surgical patients present forms of blood poisoning in which the poison has not proceeded from the wound and for which the surgeon is not responsible."

Senn says, "Circumscribed or diffused paresis of the intestine is caused either by an inflammatory affection which produces suspension of muscular contractions or the tunics of the intestines are in an intact condition but a paralysis has resulted from reflex causes ***. The contents of a parietic bowel are liable to undergo fermentative and putrefactive changes and the gases that develop cause so extensive a tympanitis that the latter may become a mechanical cause for the obstruction."

No doubt the bacteria found in the intestinal cavities have somewhat to do with the bringing about of this condition, but it is not a causative factor. The rapid formation of gas from the putrefaction and fermentation of the bowel contents is the mechanical cause of the intestinal distention, paralysis and apparent obstruction. It also influences, by absorption of the gas, the nerve centers, particularly the inhibitory centers, thereby acting chemically and reflexly. As an evidence of this absorption is the hebetude and

mild delirium which occur without febrile disturbance and the coma, in fatal cases. Another cause is a too active interference in attempts to move the bowels when there exists no urgent need for their movement. Most cases are caused by the trauma of the operation or labor as before mentioned, producing exhaustion of muscular vitality, thus permitting distention from putrefaction and fermentation.

Symptoms. The symptoms are not unlike those of general peritonitis within certain limits. The condition comes on insidiously. There may have been one or two bowel movements yet not entire relief from tympany. There is a sense of fullness without pain, in the abdomen, restlessness, thirst, more or less difficulty of breathing from pressure on the diaphragm, quickened pulse. Assimilation and digestion cease, and the whole process of metabolism seems altered.

The temperature at the outset may be normal or subnormal, scarcely ever elevated. There is no pain. When the distention becomes marked there is a tendency to flex the thighs and elevate the shoulders in order to relieve the difficulty of breathing and not from pain; there is sighing and rapid breathing. There is no desire or ability to evacuate the bowel or pass flatus; there is a paralysis of the sphincters with eversion of the lower bowel. There is an absence of facial expression so familiar in peritonitis. As the disease increases all these symptoms are more pronounced. In some cases there is vomiting, in most none. Throughout the whole course of the disease the bowels resist all efforts to move them. In our experience, in those cases where there was vomiting, the vomitus was free from stercoraceous material and the patients were free from all tenderness and pain. In extreme cases there is intense nervousness, delirium and dulling of the mental faculties and, in fatal cases, coma. Temperature near the close may reach 104° or 105° .

Diagnosis. The principal disease from which to differentiate intestinal paralysis is acute general peritonitis. The manner of the onset, the history of prior affection, trauma of the operation or labor, absence of pain and tenderness, absence of fecal vomitus and facies abdominalis, absence of fever are the main points of differentiation.

Prognosis. The prognosis is serious if not always grave. It depends largely on the physical condition of the patient and the amount of depletion of vitality from the affection prior to the

onset of the trouble. To say the least, when peristaltic action has ceased it should be a matter of gravest concern.

Treatment. Treatment is largely prophylactic. Wyeth says, "It is of great importance that before an operation the alimentary canal be carefully emptied ***. There is no more important precept in surgery than this, and the surgeon fails in his duty who does not fully appreciate the dangers of intestinal toxemia." Parks insists as strongly as possible on the "preparation of patients for an ordeal which comprises a combined effect of anesthesia and consequent disturbance of secretions and elimination with loss of blood and strength, most important of which is a careful cleansing of the bowel by gentle or active purgation." Particularly is this precept true in prospective confinements. The alimentary tract from the very nature of things is necessarily more or less compressed and constipated weeks before actual labor is terminated. Under ordinary circumstances, where labor has been of short duration, peristaltic action is normally held in abeyance for two or three days and longer, if labor has been severe and prolonged. Therefore if the bowels have not been thoroughly evacuated and cleansed and this condition arises, the safety of the patient is greatly endangered if life is not actually sacrificed. The same precaution is necessary in abdominal surgery.

In cases of emergency, where this careful prophylaxis cannot be carried out in detail before hand, it must not be overlooked afterwards. Another essential thing in treatment is restricting the diet upon the first appearance of the distention. All active purgation is harmful. After a reasonable amount of purgative has been given without effect the further administration of such is detrimental.

For the distention a rectal tube with injection should be tried carefully until evidence of irritation develop. A persistent use of a rectal tube and enemas prove disastrous if there is present any evidence of rectal irritation. Lavage of the stomach may be tried with beneficial effect to relieve pressure on the diaphragm. Hot turpentine stupes may be tried to relax muscular rigidity. Electricity in some cases is effective.

Internally bismuth, charcoal, salol, turpentine, singly or in combination, strychnine hypodermically to excite muscular contraction may be given. Internal medication, in my judgment and experience, proves of little avail.

I am convinced that once the condition is present very little can be done. What surgery may do for such conditions I do not

know, but if the opportunity again presents itself I would feel justified, other methods failing, in performing an abdominal section to relieve the condition.

CONCLUSIONS.

I. That this is a separate and distinct condition if not a disease.

II. That it is not peritonitis.

III. That it is caused primarily by the decomposition of the bowel contents which is excited by the trauma of operation or labor and, if there be any infection, it is auto-infection.

IV. That treatment is more of prevention than curative.

V. That internal medication does not alter the course of the disease.

VI. That opening the abdomen, for relief of the pressure, is justifiable.

I am indebted to Miss Wilkinson, head nurse at St. Luke's Hospital, for examining medical and surgical literature bearing on the subject, for the quotations selected, and for a review of the clinical experience herein used as a basis for this paper.

RHEUMATISM OF CHILDHOOD.*

By W. C. HASTINGS, M. D.

SEATTLE, WASH.

Socrates once said, "Could I climb to the highest place in Athens, I would lift my voice and proclaim: Fellow citizens, why do ye turn and scrape every stone to gather wealth, and take so little care of your children, to whom one day you must relinquish it all?"

There is no department in medicine more significant, none commanding more honest work and study, none where progress is more constant and where the beneficence of appropriate treatment is more appreciated by the world than the department that relates to the diseases of infants and childhood. Accordingly, while I shall not offer anything very new or propound any original theories in this short paper yet I do desire to call attention to a disorder that is too often overlooked in our daily work with children.

We are too prone in making our examinations of children to base our ideas of rheumatism upon the well known symptoms in the adult, namely; severe pain, great swelling, high fever, scanty urine, etc., forgetting that a child with rheumatism may and generally does present a different array of symptoms; in fact, but few of the

well recognized symptoms accorded to rheumatism may be present. So that, unless great care be exercised, we may not be aware of the real trouble until brought face to face with a serious valvular lesion.

While recognizing the fact that inflammatory rheumatism is perhaps an infectious disease, yet, nevertheless, there often lies in that great realm of metabolism many faulty conditions, making themselves manifest in rheumatic, lithemic and gouty symptoms. If metabolism were better understood a host of troubles might be the better interpreted, for example, rickets, marasmus, and many other conditions. However, it affords a convenient stopping place in our pursuit, until the etiology of the above conditions is better understood.

Well marked cases of rheumatism are very rare before the fifth year. However, I have seen a case in an infant only a few months old. Acute articular rheumatism is quite rare in children, but the other manifestations are very common and as frequently are overlooked or at least are too often passed by. Among these manifestations are growing pains, eczema, erythema, purpura, chorea, migraine, torticollis, gastralgia, anemia, tonsillitis and heart affections.

When we have a case of acute articular rheumatism in a child, the swelling may be extremely slight, attended with but little redness and pain, and the fever may be very moderate. In very truth the little one may seem scarcely sick enough to go to bed, the place it should be until all symptoms have entirely disappeared. If this be the case with articular rheumatism, how shall we recognize rheumatism that might well be called the abarticular? Given an hereditary predisposition, attacks of tonsillitis, growing pains, easily fatigued, anemia, functional nervous disorders, namely: sleeplessness, irritability, erythema,—and you have a case of rheumatism.

Malassimilation, growing pains and tonsillitis are very reliable sign-posts. However, you may not have all these indications; there may be only a history of tonsillitis, with a very tedious recovery. Here we must not fail to examine the heart, or a dangerous endocarditis may be in full bloom before we are aware of it. Moreover, as Dr. Butler says, in *The Diagnostics of Internal Medicine*, "Pericarditis, fibrinous, serofibrinous or purulent, sometimes attended with delirium, may occur; so also may myocarditis."

One attack predisposes to other attacks, consequently these children need the very best hygienic care, for repeated invasions of rheumatism will assuredly produce heart lesions of greater or

less severity. Always look upon "growing pains" and tonsillitis with suspicion. I have noticed in some cases that the removal of the tonsils has been followed by a complete and entire cessation of the rheumatic symptoms. However, we may have rheumatism in children without tonsillar involvement and, moreover, the rheumatism may not manifest itself in any way except by an endocarditis.

Likewise some skin diseases, erythema, eczema, etc., are of undoubted rheumatic origin. Night terrors and sleeplessness are sometimes offshoots also, as well as migraine and gastralgia.

There is one condition upon which I wish to lay particular stress, and that is chorea. The majority of cases are but the manifestations of rheumatism. Uniformly you have the growing pains, tonsillitis and anemia. The danger in chorea is the often accompanying endocarditis.

There is a difference of opinion as to the percentage of chorea cases that are rheumatic, but undoubtedly the great majority are engrafted upon that diathesis. The treatment is largely hygienic, avoiding as far as possible all conditions that have a tendency to aggravate and cause rheumatism. In regard to diet, the consensus of opinion is that "rheumatic children do much better upon a diet composed largely of nitrogenous food and that the sugars and starches should be restricted in amount. Milk should be freely given in all cases" (Holt).

The remedies given should meet the particular condition in which the rheumatism manifests itself. Those usually indicated are the same as in adult life. Thus we have for the more acute cases sodium salicylate, oil of wintergreen, salicin and salol. Alkalies are indicated particularly in those cases where there is a hyperacidity of the urine.

But subacute cases are often little or not at all influenced by the salicylates and the alkalies, and here we have to depend on the use of general tonics, as iron and cod liver oil.

In order to protect the heart during a rheumatic attack absolute rest and an equable temperature for the patient must be insisted on and procured.

For the chorea of rheumatic origin we have the salicylates and *cimicifuga racemosa*, of which give the fluid extract, ten to fifteen drops in water, three times daily. While in the non-rheumatic cases of chorea we have arsenic—Fowler's solution—the most valuable remedy we possess.

But let us remember that always, when a child has growing pains, tonsillitis, anemia and functional nervous disorders, we have a case of rheumatism and that its heart is in danger.

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CLARENCE A. SMITH, A. B., M. D.
Editor in Chief.

JAMES B. EAGLESON, M. D.
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NO. 6

THE JULY MEETING IN PORTLAND.

The Lewis and Clark Fair has been formally opened by President Roosevelt pressing the button. It is said to be the most complete fair at the time of opening that has yet been prepared. While the physicians of the whole country will inspect this with pleasure and satisfaction, Portland will be their Mecca by virtue of the great gathering of their fellows from all corners of the land. Whatever question may exist as to the number of medical visitors from distant states, it is certain the Pacific Coast will be represented in large numbers. From our enquiries on the subject it would appear that the whole profession from the Puget Sound country has planned to be present. This is as it should be since this will be the first occasion for attending a meeting of the A. M. A. on the part of most of them and it will be many years before it meets again at their doors. The Washington physicians are especially interested in the success of this meeting and gratified at the completeness of the Portland arrangements in view of the general scepticism expressed two years ago as to the ability of any city of the Pacific Northwest to entertain and provide for this great meeting. We wish to express our appreciation of the special invitation to partake of Portland hospitality, recently extended to their Northern neighbors. When the A. M. A. shall meet in Seattle, after a period of ten years, we shall aim to reciprocate in like manner and extend the glad hand to our Portland brethren.

RECEPTION OF A. M. A. DELEGATES IN SEATTLE AND TACOMA.

The medical profession of Seattle and Tacoma plan to receive the Eastern visitors, when passing through their cities to or from Portland, and to offer them the best attractions available. It is announced that special trains from New York, Chicago, St. Paul, the Missouri and the Mississippi valleys will reach these cities, July 8, 9 and 10. These will be met by committees and, whether their stop be long or short, the visitors will find something to fill each hour. In Seattle the medical headquarters will be in the new and elegantly furnished Elks Hall, on the fourteenth floor of the Alaska Building, where suitable entertainment will be prepared. Special cars will be provided to carry all who wish to see the features of the city. Boats will be engaged for rides on the Sound or Lake Washington, if preferred. It is assumed that our Eastern friends will, at this time, choose to devote the hours at their disposal to the beauties and development of the Puget Sound country rather than to social functions. After the Portland meeting it is planned to receive the visitors more at leisure who shall return by the Northern routes. Receptions and visits to local points of interest will be prepared. The physicians of Tacoma will receive and entertain the visitors along similar lines. It is expected that attractions of sufficient interest will be presented that they will be persuaded in the future to return to the Northwest.

BRITISH COLUMBIA MEDICAL ASSOCIATION.

The annual meeting of this neighboring association will be held in Vancouver, B. C., July 18-20. Coming immediately after the A. M. A. meeting, visitors from the East who return home via the Canadian route, will find this an opportune time to meet the brethren across the border, after spending the few intervening days in the state of Washington. It is stated that the well-known British Columbia welcome will be extended to all who attend and past experience has shown that the hospitality from that region is of the highest order. We trust the profession of the Northwest will not forget this among the other attractive medical meetings of the month of July.

MEDICAL OBITUARIES.

The fact is repeatedly illustrated that the life and activity of one individual cuts but a small figure in that of a large and growing community. The leading physicians of today are a memory to-

morrow and forgotten by the next generation. Recently Dr. Jacobi, of New York, delivered an address on the life of Dr. Kracowicz, whom he termed "the leading American physician born in Europe." Being forced to leave Germany for his activity in the revolution of 1848, he settled in New York and soon became one of the most distinguished surgeons of his day as well as a leading spirit in the civic life of his adopted city. He died but thirty years ago and yet, as Dr. Jacobi states, scarcely one of his audience, in all probability, had ever heard of him before. We may all anticipate a similar fate. At the same time it is true that no class of men has a greater influence for good in any city than the medical and they, if any citizens, deserve to be held in the memories of their successors. To this end a local medical journal can devote its pages to no better purpose than presenting the characteristics and incidents in the lives of the deceased physicians in the field reached by it, thus serving to place them on permanent record. NORTHWEST MEDICINE desires to serve such a purpose in the Northwest and to this end, will always be pleased to publish obituaries received, of departed members of the profession, together with half-tones of their accompanying photographs.

PRACTICE OF MEDICINE IN SEATTLE SIXTEEN YEARS AGO.

The cut on the opposite page shows the office of the editors of this journal during the summer of 1889, following the Seattle fire of June 6. It illustrates the office accommodations that prevailed for several months during that strenuous period and which served for a large proportion of the medical profession. The contrast is striking, compared with the facilities of the present day. This, however, possessed its advantages. There was never complaint of the lack of fresh air. No time was lost in closing for the night, this duty being accomplished when the tent flag was dropped. Besides, the liberality of the owners was manifest in thus offering the opportunity for a free night's lodging to any wayfarer who might be hunting a bed. How much pleasure of life would be lost were we deprived of the recollection of the happy experiences of the past!

ALUMNI ASSOCIATION OF UNIV. OF PA.

The annual reunion of the Pacific Northwest Alumni Association of the University of Pennsylvania will be held at the University Club, Portland, Oregon, Saturday evening July 15, 1905. All members of the Association are earnestly requested to be present, and all visiting University of Pennsylvania graduates who expect to be in Portland at that time are most cordially invited to meet with us.

CHARLES E. McCCLURE, Secretary.

Seattle, Wash.



Physicians' Office after the Seattle fire

OBITUARY.

GIDEON ALLEN WEED, M. D.

Dr. Weed was born at New Providence, N. J., March 7, 1833 and died at Berkeley, Cal., April 22, 1905, from cerebral hemorrhage. He descended from Revolutionary stock, both grandfathers having served in the Continental army. His mother's family were among the first settlers of New Jersey and the Weeds were early settlers in Danbury, Conn. Dr. Weed's father was born in Lanesboro, Mass., and, at maturity, moved to New Providence, where seven children were born. Here the doctor was educated in the common schools. In 1856, at the age of twenty-three, he went to New York for the study of medicine which was afterward continued in Chicago, where he graduated from Rush Medical College. In 1857, in New York, he married Miss Adaline M. Willis, of Marion, Iowa, and, in 1858, they went to San Francisco by way of the Isthmus. They settled temporarily in Salem, Ore., but, in the spring of 1859, he moved to Sacramento, Cal., where he practised for a year. In 1861, at the time of the Washoe mining excitement in Nevada, he went to that camp and practised medicine at Washoe City for six years. During the civil war he was commissioned surgeon, with the rank of Major and served on the staff of Brigadier General Slingerland, of the Nevada State militia. In 1867 he practised at Crystal Peak, Nev., and in the following year at Truckee, Cal. In 1869 he spent a year in the East, returning to Cal. for a few months when he moved his family to Seattle, in 1870, and practised there till 1896.

At this time Seattle was a village of 1,000 inhabitants but he realized it was destined to become a large city and was always a firm believer in its future destiny. In 1874 he established a private infirmary and was also connected with the county hospital for the indigent sick, this being the first systematized effort in this direction. In 1876 he was elected Mayor of Seattle and, so well did he discharge the duties of the office, that he was re-elected. This service was an evidence of his public spirit since the office carried no salary and the period was one of many troubles. He was for ten years a Regent of the Territorial University, to the progress and welfare of which he gave the best energies of his mind and heart. He was one of the organizers and founders of the Territorial Medical Society which came into being in 1873 but, owing to difficulties of travel, it was indifferently supported till 1879 when it was reorganized with Dr. Weed as President. This was later merged into the State Society of which

he was a charter member. He was prominent in the organization of the King County Medical Society, of which he was the first President. Politically he was originally an ardent Abolitionist. He supported the Republican presidential candidates from Fremont to Garfield, since which time he was a firm Prohibitionist. He was a member of the Congregational church and carried the spirit of practical Christianity into all his dealings with his fellow men. Beside his wife, he is survived by a son and daughter.

His professional life was attended by an extensive and successful practice. His taste was for simplicity, his ideals were high and he could endure nothing of hypocrisy or sham in the practice of medicine or affairs of every day life. He labored untiringly to place the practice of medicine on a high plane in the Territory and State of Washington, for which his memory will be endeared to the profession. Shortly after moving to Berkeley, Cal., in 1896, he was stricken with paralysis which left him powerless to walk and the last eight years of his life were spent in an invalid's wheel chair. His mind remained clear so that he was able to enjoy his friends and books and he retained a lively interest in passing events to the day of his death. These years of helplessness he bore philosophically, being thoughtful of others, patient and uncomplaining.

RUFUS WILLARD, M. D.

Dr. Willard was born in Coles County, Ill., April 27, 1836 and died in Seattle, May 8, 1905, of chronic disease of heart and kidneys. He descended from a family of Willards, the first of whom, Simon, came to this country from England, sixteen years after the landing of the Mayflower and was one of the first founders of Concord, Mass. His maternal great-grandfather was a Revolutionary soldier and his grandfather, Rufus, fought in the war of 1812. He attended the public schools of his birth place until seventeen years of age. At this time, 1852, his father, Dr. G. K. Willard who had moved from New York to Illinois, decided to go West. The family made the trip across the plains with ox teams, meeting with many adventures and being fired on by the Indians. During the first winter the family lived at Vancouver, Wash., but, in the following spring, moved to Olympia, where the subject of this sketch engaged in the drug business which was continued for several years. Then he returned to the Empire state, via the Isthmus route, and entered the University of New York, from which he graduated in 1861, being the first person from the Territory of Washington to receive a medical degree in New York.

Returning to Olympia, he practised medicine for thirteen years when he again went to New York and graduated, in 1874, from the Bellevue Hospital Medical College. After two more years spent at his western home he again went east and continued to Europe, where he passed the examination of the Royal College of Surgeons, of Edinburg, being licensed in 1876. He also received the fellowship degree from this College. In subsequent years he took post-graduate courses in Chicago and New York.

In 1877 he was appointed superintendent of the State Insane Hospital, at Steilacoom, which position he filled for four years. In 1880 he moved to Seattle, where he practised till his death. For fourteen years he was intimately associated with Providence Hospital as its attending physician. In politics he was a Republican and in religion a devoted Methodist, being specially active in Sunday School work and greatly interested in the care and instruction of children. He was a well known Mason, having attained the thirty-second degree in the Scottish Rite. He was not only well versed in medicine but also well informed in other lines. His pleasant and agreeable manner and cheery disposition aided to make him a successful practitioner.

He was married to Sarah J. Fletcher, at Olympia, in 1858. He had five children, four of whom survive him.

MEMORIAL MEETING.

A memorial meeting to the memory of Drs. Willard and Weed was held by the King County Medical Society, June 5, 1905. Addresses were delivered on Dr. Willard by D. A. Mitchell, T. W. Sloan and G. H. Randell, each of whom testified to his generous and noble character, citing instances of his aid to the poor and needy and his special interest and love for children. Reference was made to his attention to study through a life of practice covering fifty years, and the fact that he kept abreast of the times to the last.

A sketch of the life and character of Dr. Weed was given by J. P. Sweeney. He was followed by remarks by Hamilton Stillson, P. W. Willis and C. A. Smith. They recalled many characteristics that endeared him to the hearts of those who knew him in active practice, the assistance extended to young practitioners, his cheery disposition and public spirit. His interest in the advancement of the practice of medicine and the establishment of medical societies was mentioned. He was referred to as a model for the young practitioner of a man whose life was full of usefulness and benevolence.

RESOLUTIONS.

Whereas, In the death of Dr. Rufus Willard, the King County Medical Society and our profession have lost one of its oldest members, who was always true to the highest ethics, sincere and kindly in the administration of the affairs of his calling, and

Whereas, We recognize in the life of Dr. Willard the Christian gentleman of scholarly attainments, noble purpose and perfect integrity, whose early life in the medical field in this state and city was that of the pioneer with all the struggles that characterized the resolute men of those times, and

Whereas, The community at large has sustained in his death a great loss; therefore

Be it Resolved, By the members of the King County Medical Society, that in our sorrow we extend to the bereaved family of our deceased brother, our true sympathy, and that a copy of these resolutions be sent to his sorrowing wife and spread upon the minutes of the Society.

L. R. DAWSON,
J. B. EAGLESON,
S. J. HOLMES,

Committee.

Whereas, We are called upon to mourn the death of a recent honorary member and the first President of this Society, and

Whereas, We desire to express our respect and appreciation of the life and character of our departed brother, therefore

Be it Resolved, By the King County Medical Society, that we lament the death of Dr. G. A. Weed and that, in his past life, we recognize an example of an upright man and the model of a conscientious physician; -

Resolved, That these resolutions be spread upon the minutes of the Society and that a copy be sent to his family.

C. A. SMITH,
W. A. SHANNON,
J. B. LOUGHARY,

Committee.

PRIZES OFFERED BY NORTHWEST MEDICINE.

We wish to keep before our readers the prizes of \$50 and \$25 which we have offered to physicians of the Pacific Coast for the best papers on original work presented to us on or before the first of next September. The announcement of the names of the successful competitors will be made at the fall meeting of the Washington State Association.

TO OUR READERS AND CONTRIBUTORS.

All material for publication must be received by the twentieth of the month preceding publication. Articles will be illustrated by half-tones or etchings when accompanied by photographs or drawings for the same. Reprints of contributed articles can be obtained at the cost of publication, from the Metropolitan Press, publishers of the journal. A limited number of additional copies of the journal will be supplied to contributors, if a request is made for them.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. H. LYONS, M. D.; Secretary, C. H. THOMSON, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of May 1. In the absence of the President and Vice-President, Dr. S. J. Holmes was elected to fill the chair. Fifty members and visitors were present.

P. W. Willis read a report from the committee appointed to prosecute illegal practitioners. It gave a detailed account of the physicians of the county, showing that only three could be found, amenable to the law. One had been prosecuted and convicted. The others are in course of prosecution. The question was discussed of prosecuting an osteopath and carrying the case to the highest courts in order to determine the legal standing of the osteopaths. The society voted to instruct the committee to do so.

PAPERS.

Hernia, Illustrated by Lantern Slides. J. B. Eagleson delivered an address on hernia, accompanied by many illustrative slides. After calling attention to the anatomy of the abdominal wall, he described the different kinds of herniae, showing photographs of them. He explained and illustrated, in detail, the features of the Bassini and Halstead operations.

Different members commented on the clearness and information contained in the address, together with the excellence of the illustrations.

Is Cancer Increasing? C. A. Smith read this paper. He contended that, while on the face of statistics there seems a great increase of cancer, this is shown to be the result of more careful diagnosis in recent years and more accurate certification of deaths. By confining the study to deaths of 30 years of age and upward no real increase is found. By dividing cases into those of the accessible and inaccessible organs, the increase is found wholly in the latter, explained by more frequent operations on these organs and improved diagnosis. These facts were illustrated by statistics from the death returns of the District of Columbia.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of May 15, President Lyons being in the chair. Forty-five members and visitors were present.

Drs. J. C. Snyder and A. C. Crookall were elected to membership.

The committee appointed to make arrangements for entertaining visiting physicians from the East in July, reported that the society would maintain headquarters at Elks Hall in the Alaska Building, to which the visitors would be invited. Special cars will be provided to convey about the city all who wish it. Other entertainment will be in accordance with their hours of arrival and duration of stay.

The report was accepted and the committee continued to carry out its suggestions.

PAPER.

A Successful Diagnosis of Chronic Gonorrhea. G. S. Peterkin read this paper. He detailed the methods of obtaining the patient's history which will give most valuable information, together with the physical examination that will cover all the factors entering into the chronic state of this disease. It is a lengthy process thus to go over the patient, requiring about fifteen or twenty minutes but the doctor thought it would pay in the end and was justifiable. He did not think any progress had been made in shortening the course of this disease. It still requires from three weeks to three months to cure an acute case and an indefinite time for a chronic case which, in fact, may never be cured. He thought about 3 per cent. of these cases are incurable.

The paper was discussed by Drs. Redon, Raymond, Smith, Mitchell, Read and Willis.

It was voted to defer till next meeting the memorial addresses on the deaths of Drs. Weed and Willard. The President was instructed to appoint a committee on resolutions for these deaths.

WHATCOM COUNTY MEDICAL SOCIETY.

President, F. J. VAN KIRK, M. D.; Secretary, W. N. HUNT, M. D.

A special meeting of the Whatcom County Medical Society was held at the Hotel Byron, Bellingham, Monday evening, May 15, with Dr. F. J. Van Kirk, President, occupying the chair.

At nine o'clock a sumptuous supper was served in honor of the fourth anniversary of the organization of the society and complimentary to Dr. J. B. Eagleson, of Seattle, as guest of the evening.

Following the banquet Dr. Eagleson addressed the society on the subject of "Hernia," which was illustrated by a large number of stereopticon views. The anatomy of the parts concerned in the different varieties of hernia was dwelt upon in detail, a thorough knowledge of which the doctor declared to be the foundation of successful operation for hernia.

In describing the operative treatment of hernia, Dr. Eagleson gave special attention to the Bassini and Halstead operations and explained very fully and completely the different steps required to secure satisfactory results.

In addition to most of the physicians of Bellingham, several from other parts of the country were in attendance and all greatly enjoyed the evening.

RECENT PROGRESS IN MEDICINE AND SURGERY.

INTERNAL MEDICINE.

Edited by

C. W. Sharples, M. D.; H. M. Reed, M. D.

Diagnosis of Diphtheria. By Robert B. Preble, A. B. M. D., *Progressive Medicine*, March, 1905.

In reviewing the subject of diagnosis in diphtheria he brings out strongly several very important and instructive points. The diagnosis between the pseudo-membranous angina of syphilis and diphtheria angina, as defined by Campbell, he says, made an impression on him because he has several times seen syphilitic throats mistaken for diphtheria, that the two condition may closely resemble each other, and that culture will always clear the diagnosis. But while waiting for the culture report, promptly use antitoxin.

Dr. Preble refers to the points brought out in McMahon's article upon, "The Uncertainties of Diagnosis and the Necessity of Early and Vigorous Treatment of Diphtheria." He quotes in full McMahon's deductions under four principal heads, as follows:

(1) "Always examine the throat of a sick child no matter what the symptoms are. To this might be added the caution to examine the nose also and make a culture in all cases of coryza which appear more sick than a simple nasal infection should make them. My observation is that a considerable number of cases which do not receive antitoxin until the fourth or fifth day of their illness, are cases in which the diphtheria began in the nose and later extended into the pharynx."

(2) "Do not trust to the old-fashioned methods because the diagnosis of diphtheria is doubtful. Whenever there is any reasonable grounds for suspecting diphtheria, use antitoxin at once, and use enough. Too much can do no harm; too little will."

(3) "Immunize all children exposed to contagion."

(4) "Do not delay using antitoxin. 'Do it now.'"

"This points out the two most frequent mistakes in the treatment of this disease, delay and insufficient dosage. If the diagnosis of diphtheria is a reasonable suspicion, inject the patient at once, and if you are in doubt whether to give 2000 or 4000 unites, give the 4000."

READ.

Myxedema following Exophthalmic Goiter. By N. B. Foster, M. D. *Am. Journ. Med. Sc.*, April, 1905.

This somewhat paradoxical condition is based upon report of a clinical case and deserves more than passing notice because myxedema is the last thing to be expected in or after exophthalmic goiter, where the well known pathologic condition is one of parenchymatous hypertrophy with too much colloid material and consequently too much thyroid substance secreted and excreted.

The case reported by Dr. Foster was 42 years of age when she first noticed the swelling in her neck. This was associated with certain characteristic nervous symptoms which "the patient thinks" continued up to the time of admission to hospital, when she was suffer-

ing from marked symptoms of myxedema such as weakness, loss of hair, puffness of skin and a leucoderma, swelling of the feet and exaggerated reflexes. He states that the thyroid gland was not palpable and that she improved on large doses of thyroid extract. The condition to our mind shows rather a thyroid atrophy, following a parenchymatous hypertrophy, and the point of interest is the age of primary enlargement, if her statement can be relied upon, as the disease usually is one beginning in the third decade, and thyroid atrophies from any cause are very rare before the fiftieth year. A careful study of this report makes one almost think of a mistaken diagnosis.

READ.

On the Study of Fifty Cases of Perforation in Typhoid Fever. By J. Allison Scott, M. D., Univ. of Pa. Med. Bull, May, 1905.

These observations are made up from cases occurring in the Pennsylvania Hospital since 1901. Statistics go to show that one death in every three or four depends upon perforation. The time of perforation, as estimated from these fifty cases, shows that the majority occur in the third and the next larger number in the second week, also shows that perforation is more frequent in severe cases, there being twenty-seven out of the fifty. Ten of the fifty were moderately severe and six mild. The perforations vary much in size, from that of a pin head, to, in an exceptional case, the size of a fifty-cent piece. The perforations usually are single but may be multiple and in one case there were six openings. The symptoms are by far of the greatest importance and especially so to make an early diagnosis. Twenty-five cases had sudden localized pain; three had pain of sudden onset soon becoming general; six complained of no pain, and in five there was no previous history of symptoms. The pain varies in location, in some cases being referred to the right iliac region, in others to the right side, about the lower zone. In some cases it is well over the left side, in others over both lower zones and in some it is general all over the abdomen. It is also interesting that a great many cases, in which perforation has occurred, have complained of pain during the early progress of the disease.

Tenderness on pressure was present in at least seventy-five per cent. of the cases. Distention was present in about one-half but was, of course, a late manifestation of the condition. Chills were present in but fourteen per cent. of the cases and hemorrhage in not more than twenty per cent. The temperature may drop suddenly at time of perforation or soon afterward, with a sudden rise; or there may be a slight fall with a sudden rise; or there may be an immediate rise with a subsequent fall, or no change may be noticed. The leukocytes rose above normal in ten cases; there was no change in fourteen and there was a fall in three. In thirty-seven cases the diagnosis of perforation was made. Diagnosis of appendicitis or peritonitis was made in six cases and the perforation was entirely unsuspected in many. In two cases the hemorrhage was severe and one was operated upon after it, the perforation being unknown until operated upon. Thirty-nine cases were operated upon with only twelve recoveries. It is interesting to note that there were, during this time, ten cases operated

upon in which diagnosis of perforation had been made and the operation proved it erroneous. With the majority of cases the perforation occurs within twelve inches of the ileo-caecal valve. Eighty-six per cent. of all cases occur in the ileum; the appendix and the colon are the next most frequent sites of perforation. SHARPLES.

Clinical Study of the Diazo Reaction. By W. Taylor Cummings, M. D., Univer. of Pa., Med. Bull, Sept., 1904.

This reaction was discovered by Ehrlich and was supposed to be an infallible test for typhoid fever. Other investigators have shown that positive diazo results are given with pulmonary tuberculosis, measles, diphtheria, croupous pneumonia, erysipelas, pyemia, acute military tuberculosis, caseous pneumonia, and malaria. There are three groups of diseases that do not give the reaction, including diseases of the heart, kidneys, nervous system, and maglignant tumors. Those that give typical reaction are typhoid fever and measles and those that give occasional results include scarlet fever, pneumonia, erysipelas, diphtheria, pyemia, and acute miliary tuberculosis.

In typhoid fever the reaction may be found as early as the fifth day, but in the so-called relapse or recurrence of fever, after the typhoid course has run, it is absent, which serves to differentiate between a complication of typhoid fever and a true relapse.

As a result of a large number of reports the reaction occurred in 86 8-10 per cent. of typhoid fever cases. It occurs in about 53 per cent. of consumption, and some observers consider that it is of great prognostic value, as when a marked reaction occurs the patients usually die within six months, and when once it occurs persist until death. In measles the reaction lasted five days. In German measles the reaction does not occur, and so it may be employed in making a differential diagnosis between these two conditions.

It is also reported that out of 87 cases of scarlet fever 30 showed the reaction. The proportion in croupous pneumonia is from 25 to 40. A small proportion of the cases of erysipelas give the reaction. Cirrhosis of the liver will also give the reaction, 5 out of 10 cases being positive. Guillemin thinks that the reaction does not depend upon the temperature curve, but that it is an indication of the degree of elimination of toxins. SHARPLES.

DISEASES OF CHILDREN.

Edited by

G. B. McCulloch, M. D., Seattle; G. S. Hicks, M. D., Tacoma,
C. B. Ford, M. D., Seattle.

Severe Case of Chorea Successfully Treated by Apomorphin.—By Dr. Tull, N. Y. Medical Journal, March 13, 1905.

Child, 15 years old, well developed, presented appearance of mature woman; was of neurotic stock, menses irregular. Began to develop chorea when at boarding school. Outdoor exercises, arsenic and iron were prescribed but she rapidly grew worse until she was unable to stand. So violent were her movements that she soon was covered with sores caused by coming in contact with bed and wall. She was given veronal, gr. 10, the three valerianates, opium by suppository;

a pill containing morph. acet, camphor, English ext. hyoscyam and creasote, one every 2 or 3 hours; arsenic continued, 16 drops t. i. d.

A specialist was called who could suggest nothing but more arsenic, pronouncing it the worst case he had ever seen. After some days, when the patient was still worse, she was given apomorphin gr. 1-40 hypodermically. Within three minutes the incessant motion had ceased, muscles relaxed and the child had fallen into quiet sleep. He then ordered gr. 1-20 by mouth every 3 hours, with arsenic as before. The improvement was steady and rapid, the patient being able to go to the country in ten days.

McCULLOCH.

Summer Diarrhea.—By C. G. Kerley, M. D., N. Y. Medical Journal.

He first outlines the number of cases treated, mild and severe, and the number of days ill when first seen; the condition of child; number of passages in 24 hours; character of passages, whether watery, slimy, bloody or almost pure blood; the kind of food taken, its quality and frequency.

He states that, out of 682 cases they had but 21 deaths, thus proving that diarrhea is preventable. First, he tries to secure a pure food; second, to make the contents of the intestinal tract as poor a culture field as possible. No matter how mild a summer diarrhea it should be treated promptly and energetically, as no one is able to tell with certainty the nature and extent of the lesions. At autopsy he has often found no lesions where grave ones were expected and in others extensive ulceration where the child had passed but little mucus and no blood and had died after very short illness. A case mild at the outset and which the physician often considers a mild case of indigestion, if fed on milk, will develop a violent intestinal infection.

For diet no milk is allowed till stools are practically normal, even if for weeks. As substitutes are given cereal waters and gruels, preferably of barley and rice. If the child soon tires of this vary it by adding one or two ounces of broth to every five or six of the cereal water, using beef, mutton or chicken. But he cautions against too much broth lest it increase the diarrhea. Avoid brandy and whiskey on account of irritating stomach and kidneys. The white of egg he has discarded as it does not digest as well as the cereals.

For medicine he first gives the child a dose of calomel, gr. 1-20 or 1-10 every half hour until 1 or 2 gr. are taken, if there is vomiting. Oil is preferred in absence of vomiting, especially if quick result is desired. After cathartic acts he gives bismuth subnit., gr. 10, every 2 hours, regardless of age. If it is not converted into sulphid of bismuth, as shown by failing to turn the stool black, and due to absence of pancreatic digestion, he adds sulphur, gr. 1, to each dose of bismuth. Opium is indicated with severe pain, tenesmus and frequent stools. When pain is not severe and the child has 4 or 5 foul movements daily, with fever and prostration, he gives laxative.

Irrigation of colon is given every 8 hours in cases with green mucus, with or without blood. He uses saline and, in case of blood, one per cent. tannic acid solution. If fever is high use water at 60° or 70°. If temperature is subnormal or patient weak use it at 110°.

McCULLOCH.

BOOK REVIEWS.

Edited by

Kenelm Winslow, M. D.

The Medical Examination for Life Insurance. By Charles Lyman Greene, M. D. Second edition, revised and enlarged with 99 illustrations. Pp. 466, 9x6½ in. Cloth, \$4.00. P. Blakiston's Son & Co., Philadelphia.

This is an excellent work both for the medical student and practitioner and such extensive recommendation can not be truthfully accorded to many books. Under what the author calls the Student's Section, there is indeed much of profit to the older medical man. This section includes examination of the chest, abdomen and urine, for life insurance, and is one of the best and most discriminating descriptions for making a thorough clinical examination for any purpose which it has been our good fortune to see. The writer justly scores those examiners who do not entirely remove the clothing from the chest in the case of men, and who do not do the same as regards the upper and lower portions of the chest in women.

He says that the attempt to explore the chest with the collar, cravat and starched shirt in place has led to the loss of millions of dollars by insurance companies from tuberculosis alone, through failure of the examiners to discover phthisis in the applicant. We believe that this matter can not be too thoroughly brought to light if life insurance examinations are not to be the farce which many claim—not without reason—that they are. The description of urinary examinations and methods by Greene is better than that in any of the special books on the topic as we are familiar with them so far as covering the practical part of the subjects. Greene shows the fallacies of the ordinary tests for albumin and sugar.

Among other interesting subjects discussed are: The Medical Examiner and His Problems; The Role of Inspection In Diagnosis; Investigations of Actuarial Society of America; Occupation affecting longevity; Examination with special Reference to Heart Disease and Tuberculosis; Sub-Standard Lives; Accident Insurance.

The book is one we can commend in its spirit, style, and matter.

WINSLOW.

Diseases of the Heart. A clinical text book for the use of students and practitioners of medicine, by Edmond Henry Colbeck, B. A., M. D., B. C. (Cantab), F. R. C. P. (London), D. P. H. (Cantab). Physician to Out-patient Department at City of London Hospital for Diseases of the Chest; Physician to the Metropolitan Dispensary; Late House-Physician at St. Mary's Hospital etc., etc. With Forty-five Illustrations. Second Edition, Revised and Enlarged. Price 2.50. W. F. Keener & Co., 90 Wabash Avenue, Chicago, 1905.

This book contains nothing new, but the author has arranged what we already know in a logical and concise manner, easy of compre-

hension to the student. Especially does this apply to the chapters on diagnosis of the various organic heart lesions. The treatment as given is altogether too general to be of distinct service to the student or practitioner. It lacks what we long for when face to face with a particularly difficult case; namely, the personal experience of a careful thinker, and expert clinician, with the various remedial measures. The recital of much that may be given to alleviate disease does not help us greatly. While we are anxiously awaiting further information regarding the mechanical determination of blood pressure the author gives it scant consideration. He says, "It is not too much to say that a blood pressure gauge should form part of the equipment of every clinician" and then entirely dismisses the subject in a comparatively few lines. On the whole the book merits a recommendation to students and one who knows it well will have little difficulty in diagnosing even the more complicated heart diseases. VON PHUL.

Lea's Series of Medical Epitomes. Edited by Victor C. Pedersen, M. D.
Hollis' Epitome of Medical Diagnosis. A Manual for Students and Physicians. By Austin W. Hollis, M. D., Attending Physician to St. Luke's Hospital; to the New York Dispensary, etc. In one 12mo volume of 319 pages, with 13 illustrations. Cloth, \$1.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

This is the fifteenth of the Medical Epitomes and appears, from a careful review of its pages, to be also an admirable condensation of the subject of medical diagnosis with due regard to the value of the latest laboratory methods. It is complete in its range, and straightforward in style, and fulfils its purpose as a help to students cramming for examinations or as a remembrancer to physicians. WINSLOW.

Arneill's Epitome of Clinical Diagnosis and Uranalysis. A Manual for Students and Practitioners. By James R. Arneill, A. B., M. D., Professor of Medicine and Clinical Medicine in the University of Colorado, Physician to the County Hospital and to St. Joseph's Hospital, Denver. In one 12mo volume of 244 pages, with 79 engravings and a colored plate. Cloth, \$1.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

This little volume is the 17th of the Medical Epitomes and treats of the laboratory methods which are necessary in making a diagnosis. The laboratory examinations of the blood and urine are particularly full, while sufficient attention is paid to those of sputum, stomach-contents, feces, cerebro-spinal fluid, milk, and various bacilli. The book is an excellent one for students or practitioners preparing for State or other examinations and while, of course, from the nature of the case, not complete is none the less a remarkably good condensation. We note that the cream gauge, said to be figured in a certain cut (50) is replaced by one representing sputum. A color plate of Tallquist's scale for estimating hemoglobin forms the frontispiece and adds so much to the value of the book. WINSLOW.

Gray's Anatomy. Messrs. Lea Brothers & Co. have pleasure in announcing a new edition of Gray's Anatomy, to be published about mid-

summer, and embodying nearly two years of labor on the part of the editor, J. Chalmers DaCosta, M. D., of Philadelphia, and a corps of special assistants.

Commensurately with the importance of the largest selling medical work ever published, this new edition will present a revision so thorough and searching that the entire book has been reset in new type. In addition to the changes necessary to bring it abreast of the most modern knowledge of its subject, several important alterations have been made with the view of adapting it still more closely to present-day teaching methods, and in fact to anticipate the trend of anatomic work and study. No medical text-book has ever approached "Gray" in sturdy longevity and accumulating strength. Notwithstanding the many would-be competitors which during nearly fifty years have periodically appeared and endeavored to share its ever-increasing popularity, this wonderful creation of a genius who lived barely long enough to realize that his work was done—how well he never knew—goes on and on, each succeeding year bringing new friends and strengthening the fealty of the old.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR APRIL, 1905.

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Asotin	0	0	1	0	0	0	0	0
Chehalis	0	0	2	0	1	0	0	0
Chelan	0	0	1	0	0	0	0	0
Clallam	0	0	2	0	0	0	0	0
Douglas	0	0	0	0	2	0	0	0
King	0	0	4	1	4	0	0	0
Kittitas	0	0	1	0	0	0	0	0
Pierce	0	0	4	0	0	0	0	0
Skamania	0	0	0	0	0	0	1	0
Snohomish	0	0	2	0	0	0	0	0
Spokane	0	0	3	0	3	0	0	0
Stevens	0	0	0	0	4	0	0	0
Thurston	0	0	0	0	0	0	1	0
Whatcom	0	0	2	0	2	0	0	0
Whitman	0	0	6	0	3	3	1	0
Yakima	0	0	3	0	4	0	0	0
Seattle (City)	0	0	24	0	13	0	0	1
Spokane (City)	0	0	0	0	18	2	0	0
Tacoma (City)	0	0	15	0	2	0	1	1
Total ..	0	0	72	1	56	5	4	2
April, 1904	50	0	122	3	106	18	17	10
Total, 1905	6	0	300	6	300	27	58	18
Total same period 1904....	182	1	556	23	404	56	182	48

For the first time since 1899 the reports from county health officers show the state to be free from smallpox. The marked decrease in the number of cases and mortality of all contagious diseases, as shown by these reports for this month as well as for the first four months of the year, is evidence that the systematic work, inaugurated by the State Board of Health and carried out by the county health officers, is accomplishing the good results anticipated.

ELMER E. HEG, Secretary.

NORTHWEST MEDICINE

July, 1905

ORIGINAL CONTRIBUTIONS.

ELECTRIC INJURIES.

By E. R. Edson, M. D.

SEATTLE, WASH.

The field of electricity is one of rapidly increasing importance; it is becoming our great source of motive power; already we depend upon it in great measure for the lighting of our buildings and streets. As the years go by we will see its use increase and similarly we may expect to find a knowledge of the injuries which it may inflict to be more and more necessary to the medical profession.

There are two principal kinds of electric currents, the continuous and the alternating. The continuous or direct current is one in which the ether flow is always in the same direction. In an alternating the poles are reversed rapidly and the flow proceeds alternately to and from each pole.

Both continuous and alternating currents are employed in Seattle, the voltage varying from 110 up to a pressure of 25,000 volts, the latter existing solely on the cables transferring power, by means of an alternating current, from Snoqualmie Falls to the Snoqualmie distributing station. The following is a list of the various electric circuits in use in the city:

ELECTRIC CURRENTS IN SEATTLE.

- (1) 550 volts stationary motor current, continuous.
- (2) 550 volt street railway, continuous.
- (3) Current for incandescent lights, arc lights in buildings and motors on Edison 3-wire system, 235 volts between outside wires, continuous.
- (4) Current for residence lights, Edison 5-wire system, 235 volts between outside wires, alternating.
- (5) 2,200 volt, 2-phase circuit, alternating.
- (6) 2,200 volt currents to James street and Fremont sub-stations, alternating.

(7) 2,000-5,000 volt circuit for street arc and incandescent lamps, connected in series, alternating.

(8) 2,200 volt currents from Snoqualmie sub-station, 2-phase, alternating.

(9) 625 volt current on third rail, Puget Sound Electric Co., continuous.

(10) 25,000 volt currents from Snoqualmie Falls to Seattle sub-station, alternating.

The Snoqualmie Falls station generates at present about 9,000 horse-power. Of this, 3,000 horse-power are used by the Seattle Electric Co. for lighting purposes. Snoqualmie supplies the Interurban, sending power, 25,000 volts pressure each, to three sub-stations along the line.

All of these currents may produce burns. Of the deaths which have occurred in Seattle or its vicinity, from electric currents, 625 volts is the lowest pressure, as far as I know, which has caused it. There is an instance on record in which a fatal result ensued from contact with a pressure of 96 volts, the conditions in this case being especially favorable for the reception of the current, and again, the vital resistance being, probably, quite low inasmuch as the man was an alcoholic. It is evident that a voltage which may be non-lethal under some conditions may be lethal under other conditions. The factors which determine the results in cases of exposure to electrical currents are five in number:

- (1) The kind of current, i. e., continuous or alternating, etc.
- (2) The intensity of the current passed through the body.
- (3) The duration of contact.
- (4) The part of the body traversed by the current.
- (5) The vital resistance.

In regard to the first, we find that alternating currents, such as are ordinarily used, are more dangerous than the continuous. Consequently such currents are employed in electrocutions. However, it is interesting to note the experiments of, pre-eminently, Nikola Tesla who passed through his body currents of high potential and enormous frequency of alternation, the immunity to such currents being due, I believe, to the very great frequency of alternation.

The second factor is the intensity of the current passed through the body. We must bear in mind Ohm's Law, $\text{Amperes} = \text{Volts} \div \text{Ohms}$. The greater the voltage, the greater the amperage which may result. On the contrary, the greater the resistance, the less

will be the intensity of the current passed. Now of all the tissues of the human body, the skin seems to offer the most resistance. The thicker the skin, other conditions being equal, the greater the resistance. Again, resistance is markedly affected by the degree of moisture of the skin, by the degree of salinity of this moisture, and also by temperature. It has been demonstrated that a $\frac{2}{3}$ per cent. salt solution offers only $\frac{1}{20}$ as much resistance to electric currents as does pure water. Resistance is markedly decreased by elevation of temperature of certain conducting media. Again, the area of contact influences the result, inasmuch as a larger area decreases the resistance. Consequently, the conditions of the skin which promote a serious result are thinness, salinity of the sweat or other moisture, warmth, and a large area of contact. The thicker, dryer and cooler the skin, the less danger is there of a fatal result. Bone is also a poor conductor. Thus in the case of S. H. Abel, a powerful current passed through the tissues over the outer table of the skull, killing the periosteum and resulting in necrosis of a portion of the outer table; however, the inner table and brain underneath were apparently uninjured. The blood is probably a better conductor than any of the other tissues of the body.

In regard to factor four, the part of the body traversed by the current causes great variation in the results. In general, one may state that electric currents are fatal by so much as they pass through the heart.

Lastly, vital resistance is a factor. Horses and bulls are killed more easily than are human beings. A person with a weak heart will succumb far more readily than will a person of robust constitution. Consequently, a current which would not kill one man, would kill another. Again, the same individual might vary in his vital resistance from time to time, such variation in resistance depending upon his degree of health at different periods.

Having made these preliminary remarks, a discussion of electric injuries proper is in order. We may divide the subject of electric injuries in two main parts, accidental and intentional, as follows:

Electrical Injuries	{	Accidental	{	Flashes	{	Effects on eye	
						Burns	
	{	Intentional (Electrocutions)		Contacts with	{	Burns	
				industrial currents		Shocks	
		Lightning strokes					

ELECTRIC FLASHES.

These often cause temporary injury to the eye. Roy (*Medical News*, Sept. 8, 1900) reports three such cases. In all two symptoms were constant: (1) contraction of the pupil from retinal irritation, so strong that it persisted for several days; (2) pain, coming on several hours after the accident.

The retina is also temporarily paralysed, and the individual may be blinded for a short time. The cause is supposed to be an excess of the ultra violet rays. I myself have seen one such case. A man was standing on the platform of one of the stations of the Renton car-line. A wire was lying on the track. The car came along and a flash occurred. The man thought that something had struck him in the eye. He came to the office complaining of blindness and pain in the eye.

The burns caused by electric flashes are superficial. In one instance which I have seen, the skin rapidly became edematous, closing the eyes in a short time, and puffing the face to a great degree. The man was finishing the connection of a 550 volt wire to a small converter when the flash occurred. The skin of the entire face was burned. He was well in one week.

CONTACTS WITH INDUSTRIAL CURRENTS.

BURNS.

Pathology of electric burns.—These injuries are caused by the heat generated by the resistance which the tissues, especially the skin, offer to the passage of the current. If the body were a perfect conductor, or merely an excellent one, such as copper, there would be no burns whatever, for it would then merely transmit the ethereal energy. The impairment of or destruction of vitality is not limited by any means to the area of the surface burn proper, and consequently we observe gangrene of neighboring parts occasionally, with sloughing of muscles, tendons, bones, joints, requiring amputation at times.

Symptoms.—At the outset these burns have a dry, crisp, bloodless, often blackened appearance, and are usually excavated. In some cases where the contacts have been small in area and the intensity great, burns resembling bullet wounds may be produced. For instance a lineman was found on the light wires last summer in a dying or probably stone dead condition. The body was taken to the undertaker's where I saw him. He had a punctured, blackened burn on the ulnar side of one palm and a larger punctured burn at the base of the thumb on the other palm. The lesions

looked like wounds of entrance and of exit, which they undoubtedly were. The location and extent of these burns is shown in the accompanying diagram (Fig. 1).

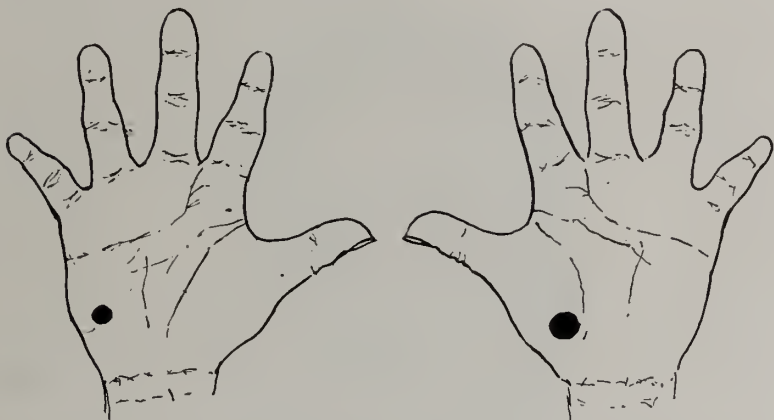


Fig. 1. Burns from Electric Current.

Probably the most important characteristic of these burns is that sloughing often occurs beyond the area of the burn proper. This, as has already been indicated, may be extensive. The injury may be far worse than was originally suspected, and consequently prognosis should be reserved in any severe case until the extent of the injury is manifested. In all probability, the sloughing is due to a coagulation of the cells caused by a heat not sufficient to burn them up, but yet intense enough to cook them. As a natural consequence of this extension of injury beyond the site of the burn proper, we find, as has been pointed out by Dr. Sharpe of St. Louis, that these burns require from one and a half to three times as long in healing as do other burns. This is due to an impairment of vitality in surrounding structures, nerves and blood vessels especially, rendering the process of regeneration more difficult and prolonged.

Treatment.—They should be kept clean. Sloughs should be removed when separated. Skin grafting should always be performed if a large, or for that matter even a small area, say two inches, of skin has been destroyed, because grafted skin is much tougher and resistant than that which is formed by the slow process of healing from the periphery. This principle should be especially borne in mind in treating burns on parts which are usually exposed to pressure. In bad cases amputations may be necessary, even of an entire hand and part of the forearm.

ELECTRIC SHOCKS.

Electric shocks vary in intensity, producing effects ranging from merely disagreeable sensations to instantaneous death. The shock may be violent enough to cause powerful contraction of the muscles, and repulsion without loss of consciousness. Again, the person may faint for a few minutes, regain consciousness, vomit, get up, and in a few hours feel perfectly well again. In more severe cases, prolonged coma, often with convulsions may result, as is well illustrated by the case of S. H. Abel, whose photograph is shown here. It will be well to give some details of his case at this point.

CASE OF S. H. ABEL.

Injured at 10 a. m., Aug. 31, 1902, at Kent, Wash.

The following statement concerning his injury was made by a fellow workman: "Abel was coming down a pole when he touched his forehead against a high-tension wire carrying 25,000 volts, and was held there for about a minute, after which his body fell on five 500,000 circular mills, insulated cables, getting his feet tangled and preventing him from falling to the ground. A workman slipped a rope around one foot and one of the wires and prevented him from falling farther. He became wildly delirious soon afterwards and several men were required to hold him. He was taken to the Kent hospital and was attended by Drs. Sewall and Horton.

The injured man was brought in on the train, reaching Seattle at 1:05 p. m., and was at once taken to the hospital. He moved and raised himself up but was unconscious. Shortly after reaching the hospital he gave his name and address, stated that he was in no pain and that the vision of his left eye was clouded. He had been given one grain of morphin before admission, according to the statement of his friend. At 2 p. m. his pulse was 72, respiration 8 to a minute, temperature 96 3-5° by rectum. His forehead, right leg, right foot and one hand were bandaged, but the dressings were not removed at this time to examine his injuries. The left eyelid was completely closed by swelling and, on examining the eye beneath, the cornea was eluded and he stated that he could only see imperfectly with that eye although he could distinguish light. The eyelid and left side of face were burned, the superficial layers of the skin having been destroyed. At 3:45 p. m. his body felt quite warm, the temperature had risen to normal and he talked rationally. Treatment: Application of heat until his temperature had risen to normal, 1-20 gr. strychnin hypodermically; cold compresses on his left eye.

On removing the dressings I found injuries as follows: A deep burn on the frontal region, about 3 in. by 3 in., where the contact was made with the wire. This burn was continuous with a superficially burned area extending down over the left temple, left side

of forehead, left eyebrow and eyelid. A superficial burn about 1 in. by 2 in. on back of left hand. Small superficial burn on right thigh, and two small burns on right calf. A rather deep burn



Fig. 2. Burns of Head from Electric Shock.

about 1 1-2 inch. in diameter on the sole of the foot. The edges were everted, giving the appearance of a wound of exit.

Subsequent history: The skin of entire face and neck swelled rapidly and both eyes were closed. The cloudiness of left cornea disappeared in a day or two. However, I believe that vision was permanently impaired in acuity, owing to an injury to the deeper structures of the ball, probably the retina. The tissues of the burned area where the contact was made sloughed to the bone, and the bone itself soon turned dark yellow in color. Five months after the injury was sustained a piece of the outer table of the skull, which had necrosed, became loosened and was easily removed with forceps. A few days later a final skin-grafting was performed. Total period of time under treatment, six months.

The question arises, what currents are dangerous to life? W. S. Hedley, in an article in the *London Electrical Review* (Jan. 28, 1898) states that currents at and above 80 volts must be considered dangerous under certain conditions. I find one instance reported in which death was caused by contact with a pressure of 96 volts, the conditions in this case being especially favorable for a deadly result because the contacts were excellent, and the man was an alcoholic with, probably, a weak or diseased heart. Hedley mentions an instance in which a man was killed by standing with

his bare feet on the ground and making connection with a 115-volt light circuit.

The coroner's books of this city give the records of twelve cases of electric death occurring in this vicinity. Probably ten of these individuals came in contact with high pressure currents, over 1,000 volts. In one case the voltage is uncertain. One man probably succumbed to an otherwise non-lethal shock because he had organic heart disease; he was a street car conductor and received the shock when he grasped the receiver of one of the company's telephones. He was hurled to the ground and died almost instantly. Another man, the motorman, took hold of the same receiver, and sustained a shock sufficiently violent to cause him to wrench the receiver from the telephone box, but he was not knocked down and was able to go home without assistance. The cause of the trouble was a crossing of the telephone with an electric light wire. The autopsy showed that the conductor had had aortic disease, and that the heart was very much enlarged—a beef-heart. I find one case of death from contact with the third rail of the Puget Sound Electric Company, the voltage in this instance being 625. The deceased was driving spikes on the railway at Georgetown, and according to the verdict of the coroner's jury, made a contact with the third rail and one of the main rails.

Mechanism of Death in Electric Shocks.—This is a subject upon which a great deal has been written. In 1894 D'Arsonval made the bold assertion that individuals who had received apparently fatal shocks were not really killed, but were in a state of suspended animation, and could be revived by artificial respiration. He even went so far as to state that during electrocutions the criminals were not killed by the current, but by the knife of the surgeon who made the autopsy. D'Arsonval's opinion is, in the light of our present knowledge, unwarranted. Numerous experiments have been made, with one or both of two objects in view, to determine the mechanism of death and also to determine the certainty of the same. The most accurate work which I have read of in this line has been done by Cunningham, of New York, and Prevost and Battelli, of Geneva, Switzerland. It has been definitely settled, as a result of such work, that the deaths are caused, in almost every instance, probably in every instance of death occurring from contact with industrial currents, by a stoppage of the heart. As soon as the circuit is made the heart, as well as the other muscles, is thrown into a state of tetanic contraction; when the circuit is broken the heart

becomes dilated with blood, and enters into a condition known as fibrillary contraction, *delirium cordis*, or *tremulations fibrillaire*, the individual muscle-fibres contracting irregularly. In short,

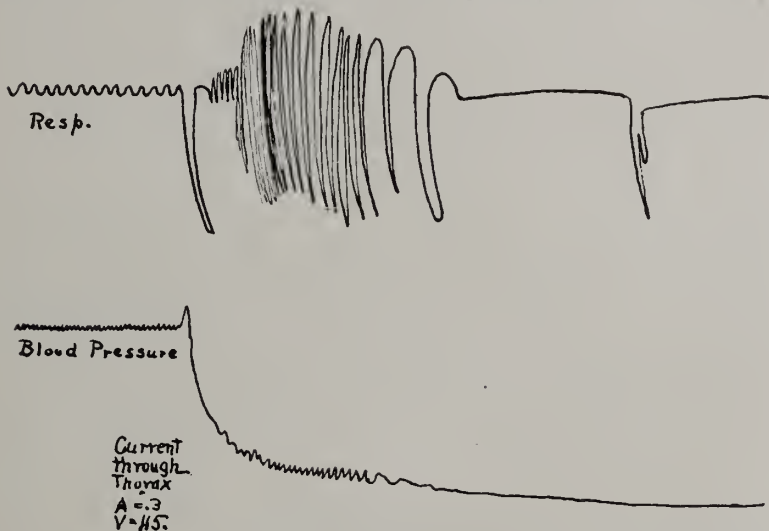


Fig. 3. Effect on Respiration and Blood Pressure of Electric Current passed through thorax of dog.

(The Cause of Death from Industrial Electric Currents. By R. H. Cunningham, M. D.)

the power of the various muscle bundles to contract rhythmically is lost. In all probability this is due to a disturbance of the intra-cardiac nervous mechanism. That death is due to a primary arrest of the heart is well illustrated by the accompanying tracing which I have taken from Cunningham's article, "The Cause of Death From Industrial Electric Currents." The results obtained by taking tracings of blood-pressure and respiration during exposure to electric currents have been confirmed by direct inspection of the exposed heart during the experiments.

Post Mortem Lesions.—As a rule, burns are found upon the body, but they do not necessarily exist. The heart is usually found with the left side empty, and with the right ventricle dilated with dark fluid blood. Frequently, microscopic or petechial hemorrhages may be found in the central nervous system and other portions of the body. In some cases, larger extravasations may exist. In the autopsy upon the criminal, David Hampton, who was executed at Sing Sing, two quarts of blood were said to have escaped from the scalp and cranium during removal of the brain—but this is very exceptional.

The Question of Resuscitation.—To what extent is resuscitation

possible? Artificial respiration has been given a thorough trial and is, I believe, of use merely in very rare cases. If the heart has been arrested, as is the case in the great majority of instances, this method of treatment will, almost without doubt, meet with failure. I have read of one case of lightning stroke, in which such treatment seemed to have saved life. In this instance death was imminent from asphyxia, the heart being, probably, almost but not quite arrested, and respiration being stopped, I presume, by falling back of the tongue. Other cases of resuscitation by means of artificial respiration have been reported but I am not convinced of their authenticity. Dr. Coe, of this city, once practised artificial respiration, in a case of electric shock, for two hours, but without success. Animals have been partially or completely revived in the laboratory, according to reports, by starting artificial circulation, by applying electric currents to the heart, and also, in two instances, by artificial respiration. A great many attempts have been made to revive animals by artificial respiration but, with these two exceptions, I have discovered no successful results. It is possible that a method may be devised which will be of use outside of the laboratories but, whatever it is, it must be one which can be applied quickly, before the central nervous system dies from anemia, and before the blood itself dies or undergoes coagulation.

Treatment of Electric Shocks.—It is evident that the first thing to do is to remove the body from contact with the circuit. This should be done carefully, or there may be two deaths or injuries instead of one. If the body is on the ground, roll it away with a dry stick of wood, or brush aside the wire. If no stick is at hand, take hold of any dry piece of the clothing, such as the coat-tail, and pull the person away. If the body is suspended, lower it by a rope, if possible. If the body is touched before contact is broken, protect the hands before taking hold, by rolling them in dry clothing. Rubber gloves, unfortunately, are usually out of reach. If the patient has ceased to breathe, pull forward the tongue and try LaBorde's method of artificial respiration, combining it with Sylvester's method if an assistant is at hand. If he does not breathe in five minutes, examine the heart and if its action is arrested, further attempts are probably useless.

A few words may be said in regard to the medico-legal aspect of this subject. There are only two well marked characteristics of death caused by electrical currents, first, the presence of burns (and they may be absent) and the instantcity of the death. Con-

gestion of the right heart, hypervelocity of the blood, microscopic and macroscopic hemorrhages in the nervous system and elsewhere, should be looked for and, if found, would furnish additional evidence.

BIBLIOGRAPHY.

1. Kolben, *Electrical World and Engineer*, March 17, 1900, Vol. 35.
2. Sharpe, N. W. *Peculiarities and Treatment of Electrical Injuries*. Phila. Med. Jour., Jan. 29, 1898.
3. Rockwell, A. D. *International Medical Magazine*, Sep. 1892, p. 811.
4. *Vid. 1.*
5. Hedley, W. S. What is the Fatal E. M. F.? *Electrical Review*, Jan. 28, 1898.
6. Cunningham, R. H. The Cause of Death from Industrial Electrical Currents. *N. Y. Med. Journ.*, Vol. 70, 1899.
7. Oliver and Bolman. The Cause of Death by Electrical Shock. *Brit. Med. Jour.*, Jan. 15, 1898.
8. Battelli, M. F. Le Mort et les Accidents par les Courants Industriels. *Rev. Med. de la Suisse Rom.*, Sep. 20, 1902.
9. Kennelly and Goelet. Does Execution by Electricity, as Practised in New York State, Produce Instantaneous, Painless and Absolute Death? *Electrical World*, Feb. 16, 1895.
10. Wade, G. A. *Br. Med. Journ.*, July 24, 1897. p. 218.
11. *Vid. 6.*
12. Battelli, M. F. Le retablissement des fonctions du coeur et du system nerveux central apres l'anemie totale. *Journ. de Phys. et de Path.*, gen. No. 3, Mai, 1900.
13. *Vid. 7.*
14. *Vid. 8.*

MEDICAL TREATMENT OF GALLSTONES.

By H. RICHARDSON, M. D.

Baltimore, Md.

Lecturer on Physiologic Chemistry, University of Maryland; Pathologist to Maryland Asylum for Feeble Minded Children.

The theories of the formation of gallstones are still exercising the pathologists, while the problem of their solution in situ remains unsolved by the clinician, who is turning his cases over to the surgeon.

Cholesterine gallstones appear to be the result of an infection, producing an inflammation of the walls of the gallbladder, and a reduction in the total solids of the bile, especially of the bile acids, with an increase of cholesterine.

Herter and Wakeman have found that they produced the same results by injecting mercuric chloride into the gallbladder of starving dogs, showing that bacterial infection is not necessary to produce a condition of bile favorable to the formation of gallstones. The questions arise, why should an inflammatory condition of the gallbladder reduce the quantity of bile acid, and in what part

of the organism are the bile acids formed? Crofton has produced both bilirubin and glycocholic acid by the action of hemoglobin in the presence of glycogen or glucose and trypsin; he has also shown that the bile acids exist normally in the blood in very small quantities. It seems improbable that the bile acids should be formed in the gallbladder, it being more likely that they are formed in the liver or in the blood in very small quantities. As they are reabsorbed from the intestinal tract a very small amount is required to keep up the quantity necessary under normal conditions to hold the cholesterine and bile pigments in solution. The liver contains the bile acids, at least that quantity which is reabsorbed from the intestine, and it is possible that the newly formed acids are excreted into the gallbladder from its mucous membrane, so that any inflammation of that membrane prevents their excretion. If this is so, inflammation of the gallbladder would gradually reduce the quantity of bile acids in the bile, only that which was reabsorbed from the intestine being available, which would gradually decrease in quantity.

Whatever may be the method by which the bile acids are reduced in quantity in gallstone, the fact is patent that if there is a sufficient quantity of glycocholate in the bile, the cholesterine will be held in solution and gallstones will not be formed. Austin (*Journal of Medical Research*, 1902) analyzed the bile from fistulas, the result of operations for gallstones when there was complete occlusion of the duct. In three analyses he obtained the following results:

Total Solids.		Mucin.	Water.	Cholalic Acid.	Choles- terine.	Lecithin.
A—	15.28	1.66	984.7	0.062	0.278	0.75
B—	14.19		985.8	0.092	0.243	0.736
C—	10.68	1.32	986.3	0.048	0.323	Trace

This shows that cholalic acid is from one-third to one-eighth of the cholesterine while, according to Hammersten and others, normal bile contains twelve to thirteen times as much cholalic acid as cholesterine. It is also worthy of note that the mucin is only one-fourth the normal amount, showing that the mucous membrane of the gallbladder was affected. The above analyses of Austin seem to prove conclusively that cholesterine gallstones are the result of a deficiency of glycocholic acid.

It naturally suggests itself that the prophylaxis of gallstones is the administration of glycocholate of soda by the mouth, since it

will then be absorbed by the intestine, entering the gallbladder from the liver, and hold the cholesterine in solution. The question as to the possibility of dissolving gallstones in situ has recently been investigated by Vaughan Harley and Wakelin Barratt (*Journal of Physiology*, 1903). They inserted large gallstones into the gallbladders of healthy dogs with antiseptic precautions, and found that in periods from six months to one year the gallstones had entirely disappeared, showing that the healthy bile of the dog is capable of dissolving cholesterine stones.

They also inserted gallstones into the gallbladder, and at the same time produced cholecystitis, with the result that the gallstones remained unaltered. Unfortunately no analysis of the bile was made in these cases, but from the work of Herter and Wakeman and the analyses of Austin it seems certain that in the cases where cholecystitis was produced there was a deficiency of bile acids, as in no other way is it possible to explain the solution of the stones in the normal bladder and their remaining undissolved when cholecystitis was present.

From the above experiments it is evident that by the administration of glycocholate of soda it must be possible to dissolve gallstones in the bladder, and even when cholecystitis is present glycocholate of soda is indicated not only as a prophylactic but as a solvent for stones already present, and that in those cases only in which there is occlusion of the gallduct is surgical interference permissible.

THE PROPHYLAXIS OF SYPHILIS AND ITS SEQUELAE.*

By WILLIAM HOUSE, M. D.

PORTLAND, ORE.

Before one can rightly appreciate the difficulties attendant upon the prevention of syphilis, it is necessary to fully understand its wide-spread prevalence and the numerous modes of contagion. The number of cases in a given community can never be accurately ascertained, because of the nature of the disease, the desire to conceal it, and the small percentage of fatal cases. Syphilis is not by any means a venereal disease pure and simple, either in its causation, manifestations, or results. Its lesions are not confined to any one set of organs, and the cure of the strictly venereal lesion which is its most common mode of origin does not mean the cure of the disease. It is one of the best examples of a strictly contagious

*Read before the Washington State Medical Association, Seattle, Wash., July 12-14, 1905.

disease, arising either from direct contact or, rarely, through fomites.

Non-venereal syphilis is more prevalent than is commonly supposed and measures of prevention must not stop at attempts directed against the disease as related to venery. In the majority of cases, however, syphilis is the result of immoral, illegal, and unnecessary relations. From these cases all syphilis, directly or indirectly, arises, and could this source of contagion be stamped out for a generation, syphilis would practically disappear from the earth.

Probably the next most frequent source is to be found in kissing, through inoculation from mucous patches, which equal or excel the chancre in contagiousness. Herein the innocent suffer with the guilty, for osculation is even more widely practised than the evil before referred to, and having no stigma of shame attached, is more indiscriminate.

Inherited syphilis may justly follow. Again the relative frequency is unknown for the protean manifestations often render diagnosis obscure, especially in the retarded forms. To inherited syphilis the name "syphilis insontium" may be most justly attached in every instance. The various means of hereditary transmission need no discussion here; suffice it that one or both parents must have syphilis in an active, or rather, comparatively recent, form.

A few instances of inoculation which have come under personal observation may be mentioned as illustrative of some of the more common means of communication. Within one year, a friend who is a well known syphilologist, had under care seven physicians who had chancres upon their fingers, contracted during examinations. All of these unfortunates, thoroughly familiar as they were with the possibilities of inoculation, had neglected the simple expedient of wearing gloves when examining suspicious cases. This prophylactic measure is so simple that any physician contracting syphilis in this manner at the present time, may be adjudged guilty of criminal negligence.

In another series of cases, three brothers were infected at intervals of about two years. The first acquired the disease "legitimately," that is, he exposed himself "unwisely but too well." The second brother, a hospital attendant, had a chancre upon his finger, from whence he never knew. The third had an iritis when first seen but insisted that he had never had a chancre, though claiming no immunity through innocence. He had had a sore upon his

neck, however, which healed only after weeks and which he said had been given him by a girl who had playfully bitten him while he was engaged in the delectable occupation of kissing her.

Another series of four cases was reported by a city district physician, in **children**, residing in the same neighborhood and all appearing about the same time. He was temporarily unable to trace the source of contagion, but finally learned that the children were in the habit of buying candy from an Italian street pedler, and upon visiting his stand and securing an examination, the proprietor was found suffering from a pustular eruption, with mucous patches, and all the other insignia of active disease. Either from the candy or directly from the polluted hands of the vender, the contagion was ascribed. In all of these cases the diagnosis was confirmed at the dispensary.

Another case in a physician was of a particularly distressing nature. The victim had a large sloughing greyish mass in his left tonsil, which was repeatedly cauterized but refused to heal. Secondary symptoms finally appeared and syphilis was diagnosed. The possibility of exposure was positively denied, and believing the diagnosis erroneous, the patient refused treatment. A year later the deluded man presented a well marked "corona veneris," together with a characteristic cachexia and was still going about untreated, exposing his friends and table mates to infection, because of his belief that the original lesion in the tonsil could not have been a chancre. These two latter cases suggest the possibility of transmission of syphilis in the trades and commerce—the first through the candy vender, the second perhaps from some drinking vessel.

It is a source of surprise that more cases do not arise from food factories and from eating uncooked berries, which too frequently are picked by filthy and diseased persons. It is probable, as an explanation of the apparent immunity from such sources, that the contagion has to be in a fresh state to be inoculated. Again the fact that contagion is not more commonly observed from public and semi-public utilities, e. g., drinking vessels, argues that the virus must be easily destroyed, for it is certain that the hundreds of syphilitics in the streets and saloons of our cities are constantly infecting glasses, cups, and table utensils, and the infected materials receive no other attention than a mere rinsing in water and a hurried drying with an often dirty towel, not uncommonly

wielded by an individual whose body is foul with the lesions of syphilis.

Lastly, excluding all further references to water closets, lavatory towels, etc., two possible sources of contagion have been impressed upon me. The first is the barber shop, and it is not to be doubted that many cases have arisen there. The other source is the public Turkish bath.

With these references to the more common sources of syphilitic contagion, it is proper to present deductions as to the means of protection. It is important to bear in mind that:

First—Syphilis is invariably due to contagion (always excepting certain questionable hereditary forms).

Second—Contagiousness is a feature of the active period of the disease only.

Third—This period, according to Fournier, is usually less than four years—in some instances, six or seven years.

Fourth—Treatment shortens the period of contagiousness, heals the sores that spread it, and is curative in eighty to ninety per cent. of all cases in which it is properly given. (Morrow.)

The methods of prevention that may be considered are:

First—State and legislative measures directed against the sources of disease.

(a.) Prostitution.

(b.) Indifference and criminal negligence of syphilitics, who fail to exercise proper precautions against communicating the disease.

(c.) Marriage of syphilitics during the active stage.

(d.) Employment of syphilitics in occupations endangering public welfare.

Second—Educational measures.

(a.) Instruction in schools and colleges as to the nature and danger of venereal diseases, including teaching of morals.

(b.) Instruction of syphilitic patients in the protection of others.

Third—Prophylaxis by treatment.

One might as well ask the sun to cease shining, the earth to cease revolving, or the moon to take a new orbit, as to try to prohibit prostitution by legal enactment. It is the consensus of police opinion, that there is but one way to deal with the social evil, and that is by legalizing and restricting it. The theologians, with a single voice, proclaim that the recognition of prostitution by any

other enactment than absolute prohibition, is subversive of good morals, and religiously, ethically, and socially wrong. Between these two extremists, the medical profession, better equipped to judge than either, and infinitely more appreciative of the disasters of unconsidered interference, is nicely balanced. Public sentiment, guided often by sensational and nauseating pulpit oratory, unquestionably favors the clerical point of view, and regulation of prostitution is therefore vigorously opposed. Arguing from this observation, and from due consideration of the results of the American policy of non-regulation, it appears that efforts might better be directed against the dissemination of vice and its being flaunted in our public streets. With the large number of assignation houses and questionable hotels in our local cities, this dissemination appears greater than is necessary. The ease and convenience with which suitable rooms can be procured makes the professional independent of restraint and she refuses to enter houses governed by any rules. Secondly, she declines medical examinations on the ground of needless expense, and competition amongst the keepers of bawdy houses is such that they dare not insist upon any care being taken to prevent disease. Could vice be limited to one section of the town and kept within houses liable to police inspection only when reported as unclean or disorderly, it is more than probable that the very element of competition which now is directed against attempts at prophylaxis, would become the best weapon of defense. Thus a modified form of regulation, i. e., segregation within certain districts and houses having no distinguishing mark (e. g., the red light) and subject to police visitation and closure upon adverse report as to cleanliness and order, together with enforced closure of houses of assignation, would diminish disease, for vice would then, to a certain extent, cease to seek its victims, but would instead have to be sought by them.

The second provision under state measures should aim at the detention of known syphilitics during the period of active inoculability. Were attempts made to place syphilis upon the list of notifiable diseases, it is not improbable that its victims would further conceal their affliction, refuse to consult a physician, and suffer prolongation of the period of contagiousness together with lessened prospects of recovery. On the other hand, such an ordinance would compel prostitutes, male and female, to exercise more precautions, particularly if transmission of syphilis was penalized.

Marriage of syphilitics is the cause of by far the largest number of cases of syphilis insontium. In a great majority of the cases the wife becomes infected from her husband. Secondly, the disease is transmitted to the offspring, presenting a sort of pathologic law of entail, for the first born receives to the full the inheritance, which diminishes in severity in the later pregnancies, with the leavening influences of time. The great pity of it lies in the fact that hereditary syphilis is so unnecessary, for by delay of but a few years in marrying, especially under treatment, the danger practically disappears. Upon the statute books of every state there should be a law prohibiting the marriage of syphilitics until at least two years after the disappearance of all manifestations, and penalizing its perpetration by a heavy fine. Inoperative though such a law might at times prove, it would serve its purposes in certain cases, particularly if syphilitics were, as a routine practice, informed of its existence by their medical advisers. It would also prove of value from an educational standpoint.

Inspection of food factories by competent medical examiners is a measure which will inevitably follow the universal employment of medical school inspectors. Their duties will be to prevent the employment of victims of communicable disease and it must not be thought that syphilis can be overlooked. The educational effect of such a measure cannot be overestimated for it would stimulate employers to exercise the utmost care in the selection of their assistants. If any be inclined to doubt this assertion, let him consider the influence of the barber's law in the establishment of the numerous "antiseptic barber shops" where, if they have not attained the perfect technic of the surgeon's operating room, they have at least elevated the standard of cleanliness, and with proper instructions would do yet more to maintain an ideal standard.

For purposes of convenience, education has been given second place amongst the forces directed against syphilis. In importance it ranks first and must always rank first, and the only question that can arise concerning it is as to the best process to be pursued and as to what methods will be included under the head of education.

Admitting the difficulties attendant upon the enforcement of laws directed against syphilis, and with a full realization of their inadequacy, it will not be denied that their presence amongst the statutes of any community cannot fail to be of educational value, and it instantly becomes apparent that under the head of prophylaxis by education, all of the preceding legislative measures must

be included, together with regular instruction of adolescents in the physiology of the organs which are concerned in the primal function of animal life. This could be attained by the division of classes according to sex, and by the employment of medical teachers who should have no other association with the school work, taking part only during the time allotted for this instruction. The chief contention against this plan is that it is not modest and would start growing youth to thinking of subjects which are not good for them to know. But every man knows that every boy is acquainted with the chief functions of sexual life, made so roughly and brutally by associations with older boys, through the medium of erroneous description and lascivious stories. Cleanly, decent, and modest teaching should replace this and should include reference to the function of reproduction, together with brief mention of the dangers of illicit relations.

For the last item there has been purposely reserved the one great force always within the jurisdiction of the physician, the one power requiring no protection of state, or morality or of pedagogic aid—the prophylaxis of syphilis by treatment. I believe that if every syphilitic could come under care immediately upon the appearance of the chancre, could be kept under rigid observation and forced to undergo not only proper medication but proper methods of living, every case would become practically freed from the danger of conveying the disease (except by hereditary transmission) within three months. The exceptions would prove so infrequent that they would but accentuate the rule. To be effective as a prophylactic measure treatment must begin early, and it is essential that some method of diagnosis be established that will do away with the need of waiting for the secondaries before beginning medication. Vigorous curative measures must be pursued and maintained for a period of at least two years after the last symptom of syphilis has disappeared. No other limit can be set, neither two years, three years nor four years of treatment is suitable, but two years as a minimum after the disappearance of the last symptom, will insure prospects of complete recovery in eighty-five per cent. of all cases and of complete destruction of transmissible elements in the remaining fifteen per cent. There is no parallel in the whole category of disease, wherein one can achieve so much by proper diagnostic and therapeutic ability, and wherein so much good can be done, not only as a curative but as a prophylactic measure, as in the treatment of early syphilis.

CLINICAL REPORTS.

ROUND-CELL SARCOMA OF THE BRAIN.

By ALFRED RAYMOND, M. D.

SEATTLE, WASH.

The following case is of interest on account of the scarcity of symptoms produced by the tumor and the long time before other symptoms of pressure occurred after the beginning of optic atrophy.

A. C., a girl of six years, was brought to me in the spring of 1904 to learn if a general practitioner could discover the cause of loss of vision which had come on gradually for several months. She had been treated by an oculist who had not ventured a diagnosis as to the progressive blindness. Family history was negative. Mother died from eclampsia at her birth. No history of syphilis; urine normal; measles at three years of age. She was a bright and vivacious girl, enjoying perfect health in every way except for the loss of sight which was steadily becoming more pronounced. There was no pain in head,



Round-cell Sarcoma of Base of Brain

vomiting or constipation. She could count fingers at six feet and could recognize her friends. Examination of eyes showed well marked optic atrophy. The blindness slowly increased till last Christmas when I saw her again. Then she had developed an internal squint of left eye. There was still no pain or other symptom of pressure. The optic atrophy was more pronounced. Some time in January, 1905, she began to have spasms of pain in head and loss of memory. When spoken to she would repeat the whole sentence or the last few words, evidently to impress her mind with them, as she could not trust her memory to retain what had been said to her. The blindness became complete in January or February, the attacks of pain more frequent, the mind more dull and drowsy till convulsions supervened and death occurred in March, about 18 months after the first loss of sight was noticed.

Dr. F. H. Horsfall went to the home in Port Orchard and performed a partial autopsy, removal of the brain alone being permitted. On the base of the brain was a large, flat, irregular growth, varying from 2 to 3 inches wide and extending from the spinal cord (b) nearly to the anterior part of the frontal lobe(a). It covered the medulla, extending out on the temporal lobe and up between the two hemispheres, pressing them laterally and thinning them to about a half inch in thickness. Microscopic sections, made by Dr. W. M. Kellogg, showed the tumor to be a typical round-cell sarcoma.

The case is unique on account of the long time intervening between the beginning of blindness and any other symptom of tumor, also as demonstrating how the brain may adapt itself to such a large growth without producing symptoms referable to its location. Probably this growth began near the optic chiasm, thence extending forward, backward and upward between the two hemispheres which would account for the optic atrophy being the prominent and only pronounced symptom for so long a time.

BILATERAL PAROTITIS FOLLOWING CONFINEMENT.

By MONTGOMERY RUSSELL, M. D.,
SEATTLE, WASH.

Mrs. F., age 25, the fifth day after her confinement, developed a temperature of 105°, at which time I was called in consultation and immediately curetted her, finding the uterus full of debris of blood clots and pieces of membrane, the odor of which was very offensive. The day after the operation her temperature dropped to normal and, although in a very weak and exhausted condition, she apparently was doing very well for several days, when there developed an acute inflammation of both parotid glands, the right becoming affected first, followed in 48 hours by the left, both becoming highly inflamed and swollen. Her temperature again rose to 103°, where it remained for four or five days, when the inflammation in the glands commenced to subside and in the course of a week were back to their normal size and condition.

Osler refers to 101 cases, collected by Paget, and reported by him in 1887, of parotitis following injury or disease of the abdominal and pelvic viscera. According to Dyball, (*Annals of Surgery*), these are grouped, according to causes, as follows:

10 after diseases or injury of the urinary tract; 18 after disease or injury of the alimentary canal; 23 after disease or injury of the abdominal wall, peritoneum, or pelvic cellular tissue; 50 after disease or injury or temporary derangements of the generative organs.

Nearly fifty more cases have been recorded since 1887, and when these are added to Paget's 101 cases, the proportion arising after ovariectomy is somewhat lessened, which is only what might be expected from the greatly increased scope of abdominal surgery in the last fifteen years. But ovarian cysts still easily head the list of the causes of celiac parotitis. Perforated gastric ulcer seems to come next in relative frequency, while the other cases have arisen after most of the ordinary abdominal operations, more rarely after disease of the various viscera without operation. The time of appearance of this parotitis varies considerably. It may come on as soon as the day following an operation, or as long as two or more weeks after. The greatest interval was in a case following removal of a huge hydatid

of liver, the parotitis appearing fifty-four days after the operation and twenty-three after the bladder had first been washed out for cystitis. But after operations on the pelvic or abdominal viscera, the majority of cases have arisen in the first week, while those following delivery or abortion usually appear in the second week. In about one-third of the cases both parotid glands have been involved, the second following the first at an interval of about 24 to 48 hours, as in mumps. The bilateral cases are rather more frequent after ovariectomy than after, other conditions and are certainly rare following abortion or delivery.

Paget has pointed out that suppuration of one gland always takes place when the patient is in a septic state. On the other hand, suppuration in the gland sometimes occurs when the seat of operation remains free from any signs of sepsis.

Dyball, in his article above referred to, discusses at length the etiology of celiac parotitis, and cites the three chief theories that have been put forward as follows: (1) the pyemic theory, (2) the oral sepsis theory, and (3) the reflex theory. The first is that the parotitis is due to pyemic infection of the gland: the second that it is caused by infection of the gland by micro-organisms from the mouth, via Stenson's duct, and the third that it is due to reflex nervous action, that it is in fact, a "sympathetic" inflammation, has received considerable support.

Dyball believes that Dalche's theory, that "Celiac parotitis arises primarily from vasomotor disturbances, aroused perhaps by a genital antointoxication," gives the clue to the cause of all the cases and concludes his article by saying that it appears most probable that it is due to the action on the parotid glands of toxic substances absorbed into the blood and derived from (a) the secretions of certain organs modified by injury or disease, (b) toxins of microbic origin (e. g., bacillus coli), absorbed either from the alimentary canal, peritoneal cavity, or bladder, (c) products of deranged digestion. Therefore, in any given case of injury or disease of the abdominal or pelvic viscera, the occurrence or not of parotitis will depend on the presence and the absorption in sufficient quantity of some of these various toxic agents.

The prognosis in case of celiac parotitis is nearly always favorable. In Paget's series, death occurred in thirty-seven cases, but he is careful to point out that in every instance this was due to the primary disease or operation and not to the parotitis.

TWO CASES OF CEREBRAL HEMORRHAGE.

By J. R. BOOTH, M. D.

SEATTLE, WASH.

Case 1. This is of hemorrhage from a vessel in the middle lobe of the cerebellum. Age 51. Foreman, City Water Department, making taps at residences. Family history good. Personal history negative, except that he has trembling of hands and dull hearing, both of which he has had for some time. He first noticed the attack on forenoon of December 21, 1904, about 10 a. m. Thought the wind made him lose his balance, but soon found that his steps always passed to the left of the point which he wished to reach. He worked until noon, when he went to a drug store, where he fell. He was assisted upon a car

and was able to walk fairly well, two blocks before reaching home. The next day he was unable to stand without falling to the left, which condition continued for five days. Then he gradually improved, and about the 12th day was able to stand. In three weeks he was able to stand with his eyes closed, and walk if he could see surrounding objects, but with a marked spastic motion. There was some occipital headache. At present he is much improved, but there is still loss of co-ordination, with the Romberg symptoms of loss of balance and slight occipital headache.

Case 2. This is one of pontine hemorrhage. Age 53. Tile setter. Family history good. Has had diseases of childhood, and rheumatism. Habits always good. He had a severe pain over heart and some tingling of fingers on the forenoon of October 19, 1904. This passed away shortly, and he was not stricken until in the evening, when he was sitting quietly at a meeting of craftsmen. He was assisted home. He did not lose consciousness, but there was marked mental disturbance. He was unable to speak coherently. There was some fever, which quickly disappeared. No headache. Persistent constipation. Some tingling of hands. Increased patellar reflex, due to suppression of cortical inhibitory action. Paralysis of both upper and lower limbs, particularly the left. Paralysis of right facial muscles, and muscles of the eyeball, with diplopia, inequality of pupils and loss of sensation of right side of face. The latter caused ulcer of cornea, through inability to feel foreign particles. Heart is enlarged, apex being downward and to the left. Marked arterio-sclerosis, no murmur. The history of rheumatism in this case no doubt has some bearing on his condition.

In all probability the hemorrhages were caused in both cases by too much strain being thrown upon an already weakened, sacculated and sclerosed vessel wall. In both cases the hemorrhage occurred in unusual positions. In the first it caused the single symptom of loss of equilibrium. In the second the hemorrhage is in the lower right pontine tissue, involving the deep center of the 3rd, 4th, both motor and sensory centers of the 5th, the 6th and 7th nerves, the motor fibres of motor cortical area passing through the crura before decussation and involving the fibres of the direct pyramidal tract also.

The prognosis for the present attack is good in each case. In neither are the symptoms of degeneration or contractures appearing, and there has been a steady, rapid improvement. The rapid improvement at first is due to the fact that the clot pressing upon adjacent nervous tissue is rapidly absorbed, leaving the real injury to the nervous tissue to be repaired later..

The treatment in each case has been K. I., as far as the stomach will stand it, and strychnin as a general tonic. The second case has had electricity. This I give because there is a definite contraction of the muscle and its fibres. Massage. This I do not consider as good as a fardic current because there is a movement of the muscle as a whole and it may be in any direction in which its force is usually exerted. There cannot be benefit in a galvanic current as the communication to the nerve is only diseased at the point of pressure, and exercise alone is needed when the impulse comes. Should there be persistent hemorrhage I believe 10 minims of adrenalin solution, 1-1000, hypodermically, would be of benefit. Bleeding, where there is a pulse of high tension, no doubt would be good. Strychnin is the drug beyond any other as a general tonic to hasten repair of tissues, and K. I. and mercury, when there is a possibility of specific origin.

NORTHWEST MEDICINE

CLARENCE A. SMITH, A. B., M. D.
Editor in Chief.

JAMES B. EAGLESON, M. D.
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NO. 7

SUPPRESSION OF QUACKERY.

It has been the ambition and dream of our profession, since the earliest days of medicine, to abolish quackery and to persuade practitioners of the healing art to follow the recognized paths of medical rectitude and virtue. Its blatant effrontery during these latter days is evidence that it flourishes on prosecution as do freak religions on persecution. The medical journals, from time to time, announce a campaign against the quacks, in a certain city, and when one is convicted there is great rejoicing over the bagging of this one duck. But no appreciable diminution is thereby produced in the size of the flock. The trouble lies in the fact that, almost to a man, the quacks are legal practitioners and so conduct their nefarious trade that they are not amenable to legal attacks.

The recent experience of Seattle along this line is instructive and worthy of record. No city on the coast is more thoroughly infested with medical advertisers and impostors. The brethren of other cities have long cast reflections on the indifference of the Seattle profession to the existence, in their midst, of such a malodorous cesspool of indecency as they represent. About a year ago the King County Medical Society engaged an attorney, at a fat retainer fee, to hunt out and prosecute every illegal practitioner in Seattle. After long months of waiting the Society has recently learned the results of their efforts. Lo, what a mountain has arisen from a mole hill! Among more than three hundred physicians, of whom a large number were supposed to be practising illegally,

there was discovered the huge crowd of three men amenable to the law. One of these, the notorious Lawson who has been before the courts on other counts, was convicted and sentenced to a fine and imprisonment. He has appealed and, in the meantime, continues practice as formerly. The second, Dahl, who has on several past occasions been fined for illegal practice, was acquitted on the ground of simply selling medicines and not practising. The third, Kelly, has not yet been dealt with. Whether he will meet the fate of Lawson remains to be seen.

In view of the universal failure to abolish quackery in the past we are entirely pessimistic as to its being accomplished in the future. If an educated and qualified physician has such an itching palm for dollars that he is not content with the returns from the usual, legitimate practice of his profession, there is nothing to prevent his joining the ranks of the lying, deceitful impostors and charltans. In fact, this class of men furnishes most of the recruits for the ranks of quackery and are likely to continue doing the same. However much we may deplore their existence, so long as the public patronizes them and thus demands their existence, so long will they thrive and prosper in spite of our efforts to suppress them. The most effectual blow yet delivered to the prosperity of the genito-urinary quacks in the state of Washington was an act of the last legislature, which has recently become effective, prohibiting their advertisements in the newspapers. This will tend somewhat to cleanliness and is suggestive of more that might be accomplished along the same line.

ENTERTAINMENT OF A. M. A. DELEGATES.

So rarely do our eastern brethren visit the Puget Sound region in numbers that it is desired to show them a western welcome on the occasion of the present Portland meeting, going to or from that city. The Seattle and Tacoma physicians will receive them and show them as much as possible of interest during their brief stops in these cities. It is announced that some special trains will arrive as early as July 7 and others during the two following days. Each train arriving in Seattle will be met by a committee who will escort the visitors to headquarters at Elks Hall, in the Alaska building. Special cars will be provided to carry them about the city and boats for a trip on the Sound or Lake Washington, according to the length of their stay in the city. It is regretted that indefinite information as to the number and sizes of the parties may prevent such exact preparations as might otherwise be made.

But it is aimed to show the attractions of the Puget Sound cities and to make the strangers feel at home. The steamer, Jefferson, will leave Seattle for a special Alaska excursion, July 18, the Tuesday following the Portland meeting. This interval of a few days will afford an opportunity to visit the Western Washington cities, to the visitors who contemplate the Alaska trip as well as those who will return East by one of the northern routes. These visitors will be received by the local entertainment committees and, for the time being, will be made to own the town.

THE BRITISH COLUMBIA ASSOCIATION MEETING.

We would remind our friends who attend the A. M. A. meeting that the visit to Portland can be completed in no better manner than by attendance upon the meeting of the British Columbia Association, at Vancouver, B. C., July 18-20. The program will comprise papers by Drs. Fagan, Underhill, McKechnie, Hall, Hogle, Campbell and others of the Province. Col. Tracy will give an illustrated lecture on Septic Tanks, with practical demonstration. Other entertainments of an interesting character will be provided. British Columbia contains wide-awake and progressive practitioners, whose acquaintance will be of profit and pleasure to their fellows from all parts of our own land.

OUR PRIZE OFFER.

We wish to call special attention to the prizes offered by NORTHWEST MEDICINE for the stimulation of original work among physicians on the Pacific coast, either in the United States or British Columbia. They are \$50 and \$25 respectively, for first and second prizes, for papers on subjects selected by the writers, showing the results of original work in some branch of medicine or surgery. Papers are to be submitted to the editor on or before the first of next September. Each shall be signed by a fictitious name, symbol or motto. An accompanying envelope, bearing the same signature, shall contain the writer's name and address. The papers will be referred to a committee of judges, one each from Seattle, Tacoma and Portland, who will be selected at a later date. The successful competitors will be announced at the next meeting of the Washington State Medical Association, to be held at Tacoma, in September. All papers submitted will remain in the hands of the editor for future publication if desired for this purpose.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. H. LYONS, M. D.; Secretary, C. H. THOMSON, M. D.

The regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of June 5, with President Lyons in the chair. Forty-five members and visitors were present.

Memorial addresses on the life and character of Dr. Rufus Willard were presented by Drs. Mitchell, Sloan and Randell, each of whom recounted incidents of interest in his life that displayed his generous character and his usefulness as a citizen. Appropriate resolutions were presented by the committee composed of Drs. Dawson, Eagleson and Holmes, and adopted by the society.

A memorial address to the memory of Dr. G. A. Weed was delivered by J. P. Sweeney, who gave the history of his early life and incidents of his residence on the Pacific coast. Personal testimonials concerning him were given by P. W. Willis, Hamilton Stillson and C. A. Smith. Suitable resolutions were reported by the committee composed of Drs. Smith, Shannon and Loughary, which were duly adopted.

PATHOLOGIC SPECIMEN.

Hypertrophied Heart. F. M. Carroll presented a heart of very large size, weighing 14 ounces. There was no history of significance connected with the case.

PAPER.

Cough. C. B. Wood read this paper. He described chronic coughs that have no pulmonary origin but are due to abnormalities in the nose, pharynx or naso-pharynx. He gave a description of symptoms and the means of diagnosis. As a rule the treatment is simple, consisting of the removal of the cause when feasible or by appropriate local treatment.

The paper was discussed by David DeBeck, A. W. Hawley and Hamilton Stillson.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of June 19, President Lyons being in the chair. Forty-two members and visitors were present.

The meeting was devoted to the discussion of plans for entertaining A. M. A. visitors who will stop in Seattle, going to and returning from Portland. After a general discussion of the question, it was voted to collect five dollars or more from each member of the society for an expense fund, and that the money in the society treasury be also devoted to this purpose if necessary. The President appointed Drs. Peterkin, Holmes and Thomson as a special finance committee. Also a number of entertainment committees were ordered to be appointed. It was stated that as many as fourteen special trains of delegates would pass through the city.

It was voted to prepare typewritten copies of the obituary addresses delivered at the last meeting, copies of which should be presented to the families of the deceased members.

RECENT PROGRESS IN MEDICINE AND SURGERY.

SURGERY.

Edited by

J. B. EAGLESON, M. D.; E. E. HEG, M. D.

A Case of Typhoid Perforation, Operation and Recovery. By Thos. W. Huntington, M. D., Journ. A. M. A., May 27, 1905.

After reporting a case of typhoid perforation of the intestine, followed by operation and recovery the author calls attention to the fact that fecal fistula following is not so serious as might be imagined, as most such lesions close spontaneously and Harte and Ashurst claim they are of favorable import. The operation tolerance of typhoid patients is marked, death being rarely due to operative interference. In 1903 Harte and Ashurst reported 362 cases of operation for typhoid perforation, from 1884 to 1903, with a mortality of 74.03 per cent. Keen calls attention to the progressive fall in mortality in these cases, from 90 per cent. in early years to 60 per cent in recent years, and expresses the belief that a ratio of recoveries from 40 to 50 per cent. may be easily anticipated in the future. The author believes the surgeon should be actuated by the doctrine enunciated in 1884, by Mikulicz, "If suspicious of a perforation, one should not wait for an exact diagnosis, but proceed immediately to an exploration."

HEG.

An Experimental Study of Cargile Membrane. By Albert B. Craig, M. D. and Allen G. Ellis, M. D., Ann. of Surgery, June, 1905.

Dr. Craig, after stating the conclusions arrived at by Morris in 1902, says that experiments proved that Cargile membrane would not remain adherent to tissue within the abdominal cavity after they became moist and subject to movement without being anchored by fine sutures. He then details nineteen experiments, using the Cargile membrane in the abdomen of dogs and in seven using it about tendons and nerves. Specimens from these experiments were studied histologically by Dr. Ellis and his findings given in detail in twelve instances, the object being to determine the fate of the Cargile membrane and its effect upon the adjacent tissues.

Their joint conclusions were as follows: Chromicized Cargile membrane disappears in from three to fourteen days; unchromicized, before the fifth day, the two varieties bearing about the same relation as to absorptibility as do chromicized and plain catgut.

The plain membrane will adhere more firmly to dry surfaces than the chromicized but neither can be depended upon to remain where placed unless anchored.

Neither variety is of value in preventing adhesions within the peritoneum but both are valuable in preventing adhesions about nerves and tendons, though the chromicized is the more valuable. Several layers about a nerve or tendon are a better protection than one layer. In the cranial cavity the chromicized would doubtless be the better in replacing the dura.

Their studies indicate that the membrane is destroyed by a lytic substance contained in the body fluid. In the tissues it is split into fibrils which change is accompanied or followed by the penetration of formative cells of the new tissue enclosing it, fragmentation, disintegration and absorption. Phagocytosis can be excluded as a chief contributing cause.

HEG.

Suture of Spleen for Traumatic Hemorrhage. By A. Irving Ludlow, M. D., *Ann. of Surg.*, June, 1905.

Dr. Ludlow reports a case of stab wound of the thorax, penetrating the abdominal cavity and involving the spleen, which had a cut four centimeters long, extending almost through its substance. The wound in the spleen was apposed by mattress sutures of No. 2 cat gut on a curved round needle. External wound drained. While there was a small amount of debris discharged during the first week, the patient made an uneventful recovery and was discharged in three weeks. An examination several month later showed the patient to be perfectly well. This is the third case of suture of the spleen reported.

HEG.

Hydrocele in the Female. By Halsted and Clark, *Am. of Surg.*, May, 1905.

A report is given of a case in a colored woman, aged 42 years. The patient had noticed a mass in right inguinal region for 18 years. It had always been reducible until eight days previous to admission to hospital. The mass at this time was larger than an egg and quite tender and pointed. She suffered from constipation and nausea, and was admitted on a diagnosis of strangulated hernia. On operation it proved to be a cyst around the round ligament in canal of Nuck. This was dissected off the ligament and the wound closed by the Bassini hernia method. The recovery was uneventful.

EAGLESON.

Gastro-Enterostomy. By W. H. Wathen, M. D., *Am. Jour of Surg.*, June, 1905.

The writer describes a new method of performing this operation which he claims is much simpler than the other methods in use. He makes a posterior attachment with the jejunum, three inches below its origin under the transverse meocolon, thus eliminating the intestinal loop, and leaving the stomach and intestine in practically a normal position. He uses a double celluloid stitch with a round curved needle. The opening is made two and one-half inches long, permitting stomach drainage directly into the intestine, and preventing the troublesome vicious circle. The two patients operated upon by this method are reported as doing nicely and are free from any disagreeable after-symptoms common when the loop is formed by the attachment of the jejunum at a much lower point. EAGLESON.

Suprapubic Prostatectomy. By H. Lilienthal, M. D., Am. of Surg., April, 1905.

In summing up his experience in 31 cases he gives the following reasons for the suprapubic operation: It is radical, no important vessels or nerves are cut; the urethra is not injured; wounding of the rectum is extremely rare; palpation and inspection of the bladder are easy and accurate, and one may thus gain, as in no other way, a perfect understanding of the mechanical conditions which cause the obstruction. There is no need for pre-operative cystoscopy. There is an almost total absence of shock, and the patient may be out of bed in 48 hours. No part of the urethra having been removed, treatment by the use of sounds is avoided. Drainage is procured by siphonage and without perineal counter-opening. The operation may be performed in two stages, which may be of enormous value in hemorrhage, in uremia or in grave sepsis of the bladder when catheterization is difficult, painful or dangerous. Greater speed in the operation is secured, which is an important element in aged subjects. Impotence rarely supervenes.

EAGLESON.

OPHTHALMOLOGY, OTOTOLOGY AND LARYNGOLOGY.

Edited by

R. W. PERRY, M. D.; A. W. HAWLEY, M. D.

The Essentials of Treatment of Acute Inflammation of the Middle Ear. By Albert E. Bulson, Jr., M. D. Journ. A. M. A., June 17, 1905.

Attention is called to the division by most authors of acute middle ear inflammation into catarrhal and purulent otitis media but the writer believes that clinically the two forms should be considered as different stages of the same disease, the difference in the character of the inflammation depending on the presence and activity of the infection and the resisting powers of the tissues. Bacteriology has shown that the milder types of inflammation are generally caused by the pneumococcus or staphylococcus and the severer form by streptococcus. The symptoms in a large percentage of cases will not give evidence of the character of the infection at work. The severer symptoms may be found in a mild infection or the reverse may be the case. In probably 99 per cent. of all cases the infection occurs through the Eustachian tube, the bacteria reaching the middle ear either by pressure from blowing the nose and while swallowing or by extension of the inflammation through continuity of tissue. Prophylactic treatment in cases predisposed to middle ear inflammation is too often overlooked or given inadequate attention. Especially in children will adenoids and enlarged tonsils be found a prolific sources of such inflammatory conditions, while in adults obstructive lesions of the nose are more frequent predisposing factors. In practically every case of middle ear inflammation relief is sought because of discomfort or impaired hearing or both.

Aid is more often sought, however, when the membrana tympani is decidedly congested if not already bulging, when to delay incising the drum is to invite complications and prolong the suffering of the patient.

In the author's judgment acute inflammation of the middle ear is a surgical disease and its successful treatment depends on the early establishment of drainage. He summarizes the treatment from incipency as follows:

1. The patient should be kept quiet, preferably in bed.
2. Secure free catharsis by calomel and salines
3. Secure depletion of vessels of membrana tympani and tympanic cavity by leeches in front of tragus and the osmotic effect of carbolic acid 10 per cent. in glycerine.
4. Cleanse the nasal and pharyngeal mucous membrane with saline antiseptic spray or douche. Remove any hypertrophied lymphoid tissue.
5. Advise cautious blowing of nose to limit infection of tympanic cavity.
6. Apply dry heat to control pain.
7. Incision of drum membrane under strict aseptic precautions on the appearance of pronounced redness of any portion of that organ when accompanied by pain, impairment of hearing or other evidences of acute inflammations.
8. Following perforation aseptic gauze packing for purpose of excluding infection, and capillary drainage.
9. Syringing under aseptic precautions only when discharge is purulent and profuse.
10. Judicious inflation by Politzer's method only after acute symptoms have subsided or when the drum has been opened to facilitate removal of discharge and to prevent adhesive changes in sound conducting apparatus.
11. Appropriate treatment of any associated systemic disease.

HAWLEY.

On Some Unusual Effect of Iodid of Potassium. By H. Gifford, M. D., Ophthalmology, April, 1905.

The author reports a number of interesting and rare forms of disturbances accompanying the administration of potassium iodid. In three cases there was a phlyctenular eruption on the conjunctiva; two of these had little eruption but so much pain as to necessitate the stopping of the iodid. The third case, a patient with extensive foci of old choroiditis, was given a saturated solution of K. I. in rapidly increasing doses. When taking 100 drops three times a day the right eye began to feel bad, soon becoming so painful as to stop work. All inflammatory eye symptoms subsided quickly on withdrawing the iodid and did not return on the more cautious administration of the drug. A fourth case presented a central corneal scar which was the seat of a low grade but very obstinate irritation. Potassium iodid was given in moderate doses, a few days after which two small abscesses developed deep down in the scar, accompanied by marked congestion and irritation. The abscesses broke through the inner surface of the cornea. The irritation subsided on the cessation of the iodid, but a second exhibition of the drug brought about a recurrence of the trouble.

Groenouw has collected nine cases of edema of the larynx from

taking iodid in doses ranging from 3 to 200 grs., the laryngeal symptoms generally manifesting themselves in from 24 to 28 hours after taking the drug. Some of these cases called for tracheotomy but none were fatal. Cases are also reported with glandular affections, painful affection of the feet and delirium as the result of the administration of the iodids. In our enthusiasm over the benefits to be derived from the use of the iodids we should keep in mind the case of the famous Genoa physician, Coindet, who used the drug so frequently and with such marked effect that for quite a period he could hardly venture out of his house without being stoned by some of his grateful(?) patients.

HAWLEY.

Aural Neuralgia of Dental Origin. By Richards, Laryngoscope, April, 1905.

A history of ear ache without co-existent congestion of tympanum should suggest an examination of the teeth for caries, ulceration or pressure by malposition. The inferior dental nerve is the chief offender. Anatomically it connects with the otic ganglion which is in close relation to the tensor-tympani muscle, eustachian tube and the auriculo-temporal nerve. The removal of the offending tooth gives prompt relief.

PERRY.

Treatment of Laryngeal Tuberculosis by Formalin. By L. B. Lockard, M. D., Laryngoscope, Oct., 1904.

One half of the ulcerative cases can be brought under permanent control. There is no specific but the best results are obtained from formalin, 1 to 250, after cleansing the larynx free from mucus and pus by Dobell's solution. It has the great advantage that it can be used by the patient in the above strength with impunity. Its effect upon the vegetations is prompt and pronounced. It possesses some anesthetic properties. In strength that can be tolerated, up to 1 to 150, it is by far the most powerful germicide in use.

PERRY.

BOOK REVIEWS.

Edited by

Kenelm Winslow, M. D.

Harrington's Practical Hygiene. A Treatise on Hygiene and Sanitation. For Students, Practitioners, Health Officers, etc. By Charles Harrington, M. D., Assistant Professor of Hygiene in Harvard University Medical School, Boston. New (3d) edition, thoroughly revised. In one octavo volume of 793 pages, with 118 engravings and 12 plates. Cloth, \$4.25, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

The appearance of the third edition of this book is *prima facie* evidence of the demand for such a work. With the rapid strides in medicine and recent advances made in the causation of diseases, a work of this character, to be up-to-date, must necessarily require frequent revision. So we find here that many of the chapters have been rewritten with the introduction of the most recent views and present accepted doctrines in place of matter now considered obsolete, while the general arrangement and sub-divisions of the book remain the same as in the previous editions. The transmission of tuberculosis from animals to man receives due attention, also uncinariasis and manner of its dissemination. The important relation which shell fish, flies, mosquitoes and other insects bear to the etiology of certain diseases is fully considered. The space allotted to quarantine and general prophylaxis as well as personal hygiene is rather scant. These and other important topics might have been enlarged upon at the expense of some less important matter, which would increase the value of the work without making it too voluminous. A chapter on infection and immunity adds greatly to the book.

The type is excellent and many new plates make it attractive. This edition should be received by the student and practitioner with as much favor as its predecessors.

LAZELLE.

International Clinics. Vol. 1, Fifteenth Series, 1905. J. B. Lippincott Co., Philadelphia. Cloth \$2.00.

This is perhaps the most excellent of these praiseworthy quarterlies which we have reviewed. It has always seemed that the one thing lacking was a critical review of medical progress, instead of a promiscuous assortment of miscellaneous articles—even by the best men—in a publication of this sort. We now have this supplied in the current issue. A review of progress in Treatment, Medicine and Surgery is given by the following men respectively: A. A. Stevens, D. L. Edsall, and J. C. Bloodgood. In addition we have the usual series of articles on topics of interest in relation to Treatment, Medicine—among which the papers on The Carbohydrates of Human Urine in Health and in Disease, and the Eye and Hand in the Diagnosis of Heart Disease, are particularly noteworthy—Surgery (under which head we may mention the monographs on Skin-Grafting in the Late Treatment of Severe Burns, and the Treatment of Knee-Joint Disease and of Glenard's Disease, as notably valuable), Neurology and Obstetrics.

Bloodgood's surgical review is unusually discriminating and enlightening. He thinks that experience shows the comparative uselessness of the common stimulants in surgical shock, and relies chiefly on saline infusions. Morphin appears to be the most reliable drug in post-operative and traumatic shock. He points out the need for a wider use of local cocainization for empyema, goitre and hernia operations, but warns against a stronger solution than 0.1 per cent—with the employment of weaker solutions as the operation proceeds. Adrenalin, in his experience, seems to be of no advantage as an addition to cocain. The dangers of operation in young, stout patients, and in the elderly, are noted. The over-use of cathartics and starving prior to operations is decried. The moderate use of cathartics in constipation, with a diet approaching the ordinary, seems to be the best preparation for operations as leading to less post-operative distention, nausea and vomiting than follow rigorous purging. An abstract of the modern treatment of fractures—especially those near joints—is a most valuable part of Bloodgood's paper, showing the wonderful advance in the modern methods of short immobilization, massage, and passive motion, in a number of detailed cases. Sauerbruch's discovery, by which operations may be done on the chest without collapse of the lung through the under-pressure, secured by working on the chest in a partial vacuum, or by over-pressure through inflation of the bronchial tree, is considered the most remarkable advance in recent surgery. There is also very good counsel in relation to malignant growths looking to less radical treatment, for the less malignant growths of bone, but more radical treatment for epithelioma of the breast, lower lip, and of pigmented moles and vascular nevi.

WINSLOW.

Welch & Schamberg on Acute Contagious Diseases. A Treatise on Acute Contagious Diseases by William M. Welch, M. D., Consulting Physician to the Municipal Hospital for Contagious and Infectious Diseases; Diagnostician to the Bureau of Health, etc., Philadelphia, and Jay F. Schamberg, A. B., M. D., Professor of Dermatology and of Infectious Eruptive Diseases Philadelphia Polyclinic; Consulting Physician to the Municipal Hospital for Contagious and Infectious Diseases, and Assistant Diagnostician to the Philadelphia Bureau of Health, etc. In one very handsome octavo volume of 781 pages, illustrated with 109 engravings and 61 full-page plates. Cloth, \$5.00, net; leather, \$6.00, net; half morocco, \$6.50 net. Lea Brothers & Co., Publishers, Philadelphia and New York 1905.

This text book considers the following subjects: Vaccinia, the variolous diseases of lower animals, small pox, chicken pox, scarlet fever, measles, rubella, typhus fever, diphtheria and disinfection.

The subjects contained are handled in a manner only to be acquired by one with wide experience and shrewd judgment. All important points are emphasized and explained with great thoroughness, and with the assistance of the excellent and numerous photographic plates, many points are elucidated which would otherwise remain obscure. Especial attention is given to symptoms and diagnosis.

Of especial interest are the chapters devoted to vaccinia and small

pox. In no text book are the subjects detailed in such a clear and comprehensive way. The different types and stages are illustrated by serial and separate photographs taken from life. The importance of a correct diagnosis of small pox is emphasized and the diagnostic difficulties are enumerated for the benefit of the less experienced. The complications and sequelae of scarlet fever and measles are shown to be of greater consequence than the actual diseases and are clearly brought to the reader's attention. The last chapter is devoted to dissection, its methods and most efficient agents. This book should appeal to every practitioner, not only from a literary, but also from a scientific standpoint. As a whole it is a most valuable work and should be a useful adjunct to any medical library.

SHEAD.

Lea's Series of Medical Epitomes. Edited by Victor C. Pedersen, M. D. **Alling and Griffin's Diseases of the Eye and Ear.** A Manual for Students and Physicians. By Arthur N. Alling, M. D., Clinical Professor of Ophthalmology in Yale University, Department of Medicine, New Haven, Connecticut, and Ovidus Arthur Griffin, B. S., M. D., late Demonstrator of Ophthalmology and Otology, University of Michigan, and Oculist and Aurist, University Hospital, Ann Arbor, Michigan. In one 12mo volume of 263 pages with 83 illustrations. Cloth, \$1.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

This manual endeavors to present the fundamental principles of ophthalmology and otology for the use of the student. It gives a general resume and at the end of each chapter a series of quizzes. There are about 250 pages, half of which are devoted to the eye. Of course, if one were disposed to do so, he might find much to criticize in the book, but remembering our lecture days, we all realize how much a little pocket epitome would have assisted us during our quizzes. For this the book is excellent, and, indeed, as a hasty reference well worth its price to the busy general practitioner.

The reviewer could wish the authors had devoted at least a chapter to the anatomy of the eye, had appended a glossary to the terms used, and had appended also a chapter devoted exclusively to ophthalmologic and otologic therapeutics.

STILLSON.

The Open Air Treatment of Pulmonary Tuberculosis. By F. W. Burton-Fanning, M. D., Cantab. Published by Cassell and Company, Ltd., London, Paris, New York and Melbourne. Price \$1.50.

This timely little manual is intended as a guide to modern methods of managing pulmonary tuberculosis. The contention is made that elaborate buildings are unnecessary and indeed that they provide less efficient treatment than more primitive forms of accommodation. Much emphasis is placed upon the fact that the majority of the inmates of sanatoria require life-long care and assistance if their recoveries are to be maintained, so that timely hints are given not only upon their restoration, but upon establishing them in suitable modes of living after their restoration. About half of the book is preliminary

to treatment proper. That is to say, etiology, clinical symptoms, methods of recording symptoms, selection of cases, and so on are dwelt upon. In these chapters many valuable suggestions are given, but it is in the treatment of the different forms of the disease, and the different stages of the disease that constitute the emost valuable part of the work. Suggestions given are evidently the conclusions of extensive experience. And while in a sentence the methods may be summed up by saying the patient is given open air, methodical rest, and the proper use of exercise and food, yet these measures are scientifically applied according to definite indications, and are continued for a sufficient length of time to be successful in successful cases.

STILLSON.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR MAY, 1905.

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Adams	6	0	0	0	0	0	1	0
Asotin	3	1	0	0	0	0	2	1
Chelan	0	0	1	0	0	1	0	0
Columbia	1	0	0	0	0	0	0	0
King	0	0	4	0	1	0	1	0
Kitsap	0	0	0	0	1	0	0	0
Kittitas	0	0	9	0	13	1	0	0
Lewis	0	0	2	0	2	0	0	0
Pacific	0	0	0	0	0	0	1	0
Pierce	0	0	4	0	0	0	0	0
Skagit	0	0	0	0	1	0	1	0
Snohomish	1	0	1	0	0	0	0	0
Spokane	0	0	3	0	6	0	0	0
Thurston	0	0	8	0	7	2	0	0
Walla Walla	0	0	13	2	3	0	6	1
Whitman	0	0	2	0	0	3	0	0
Yakima	0	0	1	0	4	0	1	0
Bellingham (city).....	0	0	2	0	0	0	0	0
Seattle (city)	0	0	10	0	15	1	2	0
Spokane (city)	1	0	3	0	18	2	1	1
Tacoma (city)	0	0	35	0	9	1	3	1
Total	12	1	98	2	79	11	19	4
May, 1904	39	0	123	8	96	16	31	10
Total 1905.....	18	1	326	7	323	33	73	20
Total same period, 1904....	221	1	679	31	500	72	213	58

Three cases of smallpox that started the outbreak in three different counties were imported from California and Idaho. In another county the infection came from second-hand household goods that had been contaminated and not properly disinfected.

ELMER E. HEG, Secretary.

Mistake in printing

NORTHWEST MEDICINE

August, 1905

ORIGINAL CONTRIBUTIONS.

PAIN AND VOMITING IN DISEASES OF THE STOMACH*.

By H. M. READ, M. D.

SEATTLE, WASH.

From the standpoint of the physician the stomach should receive more consideration and, now that so many are operating, or attempting to operate, upon this organ for troubles more or less plain or obscure, we should redouble our efforts to diagnose the existing disease before subjecting the patient to a severe surgical operation the final result of which, under the most favorable conditions and regardless of the disease, must for a long time remain in doubt.

The general practitioner or surgeon, as a rule, does not make a sufficiently careful investigation of stomach diseases before applying treatment. Any fairminded physician or surgeon will admit the truth of this statement and, while now and then it will require an exploratory operation to determine the disease, most of them could be cleared up if we could give more time to the study of the case, and in so doing apply the various laboratory tests and study the clinical symptoms, not separately but together with the clinical history. I have in the past, and so have you, told many patients they had "stomach trouble," or "dyspepsia," or "catarrh of the stomach," and told them to be "careful of their diet," and "take this," and now and then they got better and sometimes they came back for some more of the same brand of foolishness, and more often came no more.

Those happy days of complacency are rapidly fading and to solve the problems of internal medicine, and successfully diagnose medical and surgical cases we must apply the master word used in the wonderful address delivered by Dr. Osler.

First, pain is the almost ever-present symptom in many diseases of the stomach and is expressed in many ways. Alone it is not of much value, but when linked with vomiting and certain

*Read before the King County Medical Society, Seattle, Wash.

physical conditions, with the findings in the analysis of test meals, etc., as a rule, it has a special significance for each separate disease.

Vomiting is not so reliable a symptom for it is often absent in serious disease, but it is present often enough so as to be a valuable aid when taken in connection with pain and certain clinical conditions.

I will pass the age of infancy and early childhood, when organic stomach trouble is comparatively rare, to early youth and thence to old age during which time it is common.

A very interesting group of cases are those of young females and males at the chlorotic age of from 12 to 20 years, and almost entirely confined to females; Bettman says 90 per cent. In this group pain is a very common symptom of organic stomach disease. However, now and then a case will occur in which the vomiting of blood or actual perforation of the stomach may be the first symptom of disease. This group of cases is admirably described by Bettman, in his recent article, as acute primary ulcer, to mark them from chronic or secondary types. The pain is severe and comes after making any kind of solid or semi-solid food. It persists for some time, unless relieved by vomiting, and is associated with certain pain points or tender spots, which nearly all recent authorities agree are generally present in ulcers of the stomach, either acute or chronic, the first place a small area in the epigastric region just to the left of the median line, the second on the left of the spine from the tenth to the twelfth dorsal vertebra, or both. These spots are usually very tender, the one in front being more sensitive to very light than to deep pressure. Their presence so far can only be explained as due to some reflex irritation to the roots of the spinal nerves. In the above group of cases, occurring in young people, the anemic condition with pain on eating and relief by vomiting, or a pain that is relieved by rest in bed, with a milk diet, in the presence of the pain points described, is undoubtedly a case of gastric ulcer; for, while many chlorotic young women and girls vomit and have stomach pain, this is usually cured by a course of iron and nourishing food, and rest in bed with a milk diet does not influence that condition, and then again, in cases of ulcer in these individuals they are made worse by full diet and the administration of iron, if these are resorted to before the ulcers are cured. Vomiting of blood will occur in the majority of all cases of ulcer of the stomach sometime during the course of the disease.

Recently orthoform is coming into use as a valuable aid in the

diagnosis of, as well as in the treatment of gastric ulcer, especially in acute or recent cases; in ulceration it nearly always stops the pain very promptly. In anemic young individuals who have stomach pain and vomiting, which are not due to ulceration, the pain points will be absent and the pain will not be relieved by orthoform and milk diet. (The dose of orthoform is from 8 to 15 grs.) The examination of the stomach contents in the group of foregoing cases will not be of much value, for an excess of hydrochloric acid is not a symptom of acute ulcer.

When a person vomits blood we should be sure that it was vomited, for severe or prolonged vomiting may produce a capillary hemorrhage which usually amounts to only streaks of blood; then, again, the blood might come from other sources as the throat, lungs, gums, or nose, and in young women we should at least think of vicarious menstruation from this portion of the body when the normal function has been suppressed.

The above group of cases seems to me a very important one for they are often treated as cases of simple chlorosis. In connection with ulcer cases in general, pain is an important and almost constant factor, coming on anywhere from a few minutes to an hour or two after taking food, is very severe, is usually relieved by vomiting which will occur involuntarily in one-half of the cases, and a majority of these cases will vomit blood sometime during the course of the disease. There will usually be the pain points. The pain is usually aggravated by taking solid food and the patient will soon lose weight. A strict milk diet, with rest in bed and the administration of orthoform, will soon relieve the pain in any case of ulcer, and an analysis will usually show excess of hydrochloric acid, unless it is an old case associated with stenosis and dilatation or is a very recent acute case, and we should always rely very much upon the effect of absolute rest in bed, freedom from all excitement, and strictly milk diet, with the internal administration of orthoform to aid in making our diagnosis more secure. The pain produced by simple hyperchlorhydria is very similar to that of ulcer but is not associated with vomiting, is usually relieved by taking solid food and is always very promptly relieved by large doses of sodium bicarbonate, and the pain points are absent.

Gastric erosion is described by Einhorn, as one of the most painful afflictions of the stomach, is always, or nearly always, associated with some vomiting, is made worse by any kind of food, liquid or solid, and in the vomitus will be found pieces of the gastric mucous

membrane which have been exfoliated, and these cases are promptly relieved or cured by milk diet and nitrate of silver lavage.

Cases of supposed hyperchlorhydria which do not get well under a diet of milk and eggs, with large doses of sodium bicarbonate after meals, are undoubtedly something more than simple hyperchlorhydria for it must be remembered that sodium bicarbonate will even relieve for a time the pain of ulcer, when the same is associated with excess of hydrochloric acid and when given in conjunction with a milk diet. This relief, however, is temporary and other conditions will help to clear the diagnosis and we should never forget that gastric ulcers are extremely chronic, and we should remember the regularity of the pain in one particular place after taking food, the presence of the pain points, and the vomiting.

Many neurotic conditions produce pain in the stomach, but in the neurasthenic, or the person with brain fag, or incipient brain or spinal disease, the pain is different; for example, any kind of food may produce pain or vomiting in these cases at once, while in ulcer some time, even if very short, will elapse between the taking of food and the onset of the pain and vomiting. In nervous cases the temperature of the food makes no difference and vomiting does not relieve the pain, nor will milk and administration of orthoform give relief; the pain points are not present, they do not usually loose flesh rapidly or much, nor do they generally vomit all the food taken, and an analysis will show normal hydrochloric acid.

We must always remember that angina from arteriosclerosis may begin in the stomach instead of the chest and arms and radiate to the legs instead of the arms, or from there to the arms, and a pain of this character occurring in people past the middle of life with a good history of alcoholism, syphilis, or hard work and exposure, alone or combined, is suggestive of angina, where there is arteriosclerosis. This character of pain should call to our minds the above suggested conditions, even if the pain is associated with or followed by nausea, as it not infrequently is, for attacks of angina pectoris or angina abdomina not infrequently are precipitated by a full meal. I have personally observed this condition a number of times. Syphilis alone will not infrequently produce pain, more or less constant and severe, beginning in the region of the stomach and radiating to the back and shoulders. This does not refer to the initial symptoms of tabes dorsalis but comes in acute cases during the febrile stage. I have now one case under treatment who suffered very much as above described, and the

pain was very promptly relieved as soon as the case was brought under the influence of mercury. We should always bear in mind that *tabes dorsalis* very frequently begins with a severe pain in the stomach, even with vomiting, but these cases can be easily differentiated by attention to the clinical signs and symptoms including, of course, the chemical work, it being only necessary to remember that in only very rare cases we may have syphilitic ulceration and inflammation of the stomach and the history of the case should at once remind us of the condition. In neurotic women with pain and vomiting we must look for perverted habits, especially those of swallowing clay, chalk, hair, etc.

Gallstone colic, especially when associated with organic stomach disease, is entirely different from the pain of stomach disease alone. It is right-sided, is not relieved but usually made worse by vomiting, and often continues for several hours after there is absolutely nothing in the stomach; the pain radiates to the back and shoulders and umbilicus, and an analysis between the attacks will show a normal condition of the stomach secretions.

Acute pancreatitis might possibly be confounded with acute ulceration or acute gastritis, but here the pain is usually to the left, the onset is sudden, temperature high, vomiting does not relieve the pain but rather makes it more severe, the shock is much more profound, and the general clinical picture far more serious than that of stomach disease, especially perforation of stomach or duodenal ulcer or an advanced or early malignancy. Primary cancer of the pancreas, besides being very rare, would be easily differentiated by the absence of many of the clinical signs of stomach disease.

Vomiting of undigested food, without pain or much pain, several hours after meals, with a diminished or absent hydrochloric acid, and loss of flesh, usually indicates a dilated stomach with pyloric obstruction, with or without ulceration.

It is difficult to diagnose duodenal ulcers, the attacks of pain being right-sided, radiating to the stomach and back, and often so closely simulates gallstone colic that it has been operated upon for such by some no less skillful than Mayo. The vomiting in ulcer of the duodenum, when it does occur, apparently bears not much relation to the time of eating, and vomiting does not stop or relieve it, and if there is tenderness it is to the right instead of the left of the median line and the gastric ulcer pain points are wanting.

The pain of acute or chronic gastritis is diffuse, of an aching

character, and in chronic cases the stomach bloats, the tongue is covered with a foul coating, (in gastric ulcer the stomach is red) and an analysis shows a large amount of mucus, diminished hydrochloric acid, and a large amount of lactic and other acids, which result from fermentation of food; that is, the total acidity will be high with a marked diminution of free and hydrochloric acid.

The most confusion arises in the diagnosis of ulcer from cancer, and of course we all know the frequency with which carcinoma begins in an ulcer and, in some cases just on the border line, the symptoms and clinical signs may be identical. However, we do not often see these cases for when they come to us the malignancy has so far advanced that we need only to remember a few important points, and where a diagnosis in any case of stomach trouble can not be made with reasonable certainty, an exploratory laparotomy should be made.

One point in connection with carcinoma should be this, I believe, that in 90 per cent. of all cases of cancer and in more than that later on, the free hydrochloric acid is absent from the stomach contents. I know this percentage is disputed by authority that is excellent, still I believe it to be not too high. In the majority of cases, as soon as malignancy becomes pronounced, the breath becomes foul and the tongue covered with a more or less foul coating. In ulcer hydrochloric acid is increased in about 90 per cent. of all cases and those cases of malignancy reported in which the acid is normal or increased, when other signs of ulcer are found, are undoubtedly cases of early malignancy engrafted upon an ulcer.

It should be remembered that the pain of cancer does not bear much relation to the taking of food, although the vomiting may, and the dietary treatment heretofore mentioned, as applied to ulceration, will have very little if any permanent influence upon the pain. The pain of cancer is not relieved by vomiting. While the presence of a palpable tumor at the cancer age, in the presence of pain and a marked anemia with progressive loss of weight, makes the diagnosis pretty sure, we should not forget that an old perforating ulcer at the pylorus and the adhesions may cause a tumor and obstruction, simulating cancer very closely.

In a case of cancer near the pylorus vomiting is always present, emaciation rapid and continuous and a marked grade of anemia will be present. The amount of blood vomited is not so great as in ulcer and is usually mixed with food, mucus and ferment acids, forming the well known coffee ground vomit.

In any suspected disease of the stomach wherein the symptom

of vomiting is the most prominent, we should always think of the various reflex cases and I would especially mention chronic appendicitis.

It would be impossible to cover so large a field as is contained within the boundaries of this important and much neglected subject by writing one small paper. I have not mentioned the more recent clinical methods employed in the diagnosis of stomach disease, including the occult blood test as applied to the stools in suspected ulcerative or malignant disease, but have tried to confine myself to the two most important symptoms of stomach disease.

The surgical department of our profession is doing a good deal to stir the medical man to study their cases more carefully, and the "up-to-date" medicine man can render much of the operating unnecessary by treating properly diagnosed cases more intelligently.

THE EARLY DIAGNOSIS OF TABES DORSALIS*

BY JOSEPH E. HARRIS, B. S., M. D.

SEATTLE, WASH.

The early recognition of the condition of locomotor ataxia is of paramount importance, both to the specialist and the general practitioner, owing to the fact of its comparative frequency and its wide distribution. The condition has been recognized for many years, it having been first brought to the attention of the profession by W. Horn, in 1827, and later by Romberg, in Germany, in 1851; and Duchenne, in France, in 1858; the last two investigators bringing it into the prominence it deserves.

The prime etiologic factor in the disease is syphilis, various clinicians giving different percentages from 50 to 90, but it has come to be a generally accepted fact that specific infection accounts for practically all cases of tabes dorsalis. Exposure to cold and wet seems to be the causal factor in some cases. Heredity plays no role, neither do excesses in alcohol or sexual intercourse. It occurs more frequently in men than women and is particularly a disease of the large centers of population.

The question of early diagnosis is important from the fact that many cases are overlooked, being diagnosed as rheumatism, gastritis, neuralgia, gallstones and the like, when a careful examination of the nervous system would elicit the fact that the patients have an underlying nervous condition which would account for the symptoms.

*Read before the Washington State Medical Association, Seattle, Wash., July 12-14, 1904.

For the sake of convenience, let us divide the symptoms into four classes: Those affecting the sensory system; those affecting the motor system; those referable to the organs of special sense, particularly the eye; and those affecting the internal organs, most frequently the gastro-intestinal, the urinary tracts and the larynx.

In the majority of cases, a sharp, sudden attack of pain, lasting but a moment—the so-called lightning pain—is the first symptom; and this is very often mistaken for something else. It may persist for months or years as the only symptom, occurring with great regularity or at widely separated intervals. The “girdle sensation,” a sensory disturbance in which the patient complains of a feeling of constriction about the chest or abdomen, sometimes makes its appearance early; usually, however, it is a late occurrence. Anesthesias and paresthesias may occur, tingling, formication or burning sensations of the skin.

The most easily recognized and one of the pathognomonic symptoms, one too often overlooked, is the loss of the knee jerk, due to the sclerosis of part of the reflex arc. This occurs in all cases of tabes except the very few in which the lesion is high up in the cord or in the brain. It may exist for a long time as the only symptom, or may be accompanied by lightning pains. The ataxic gait, the incoordination of the muscles of locomotion and of the upper extremities and tongue occur in the late stages of the disease, after the diagnosis is easily established.

The third classical symptom of tabes in the early stage is the Argyll-Robertson pupil, a pupil that reacts to accommodation, but not to light. This is not alone a symptom of tabes, but evinces a syphilitic infection of the spinal cord. Ptosis, muscle paralyses and optic atrophy all occur and may be among the first symptoms, especially the atrophy. Myosis is usually present, although not a positive symptom.

The fourth group of symptoms confine themselves, for the most part, to the stomach, the so-called “gastric crisis,” in which there is uncontrollable vomiting and pain, to either incontinence or retention at the site of the urinary bladder or rectum, and to the larynx, the laryngeal crisis in which the dyspnea is marked.

The differential diagnosis lies mainly between peripheral neuritis, ataxic paraplegia, gastralgia and some acute affections in which the posterior columns of the cord are involved. In peripheral neuritis, there is absence of the lightning pains and eye symptoms and usually the history is of alcoholic, arsenical or some other poisoning. Ataxic paraplegia has not the eye symptoms nor the

pains. Gastralgia and gastritis show none of the classical symptoms of tabes. Acute affections of the cord show no eye symptoms nor usually the loss of the reflex.

To sum up, all cases with a history of recurrent pain, of gastric disturbance, of bladder or rectal trouble, particularly in middle aged men, should be examined with reference to their knee jerks and pupil reflex. Remembering the three classical symptoms—lightning pains, Argyll-Robertson pupil and loss of patellar reflex, tabes should be excluded or the diagnosis made.

AUTO-INTOXICATION AS A FACTOR IN MENTAL DISEASES*

By D. A. NICHOLSON, M. D.

SEATTLE, WASH.

The degree of mental derangement produced by auto-intoxication is dependent on several factors, and, in the consideration of those cases, we should carefully work out the different factors to determine, as far as possible, both the predisposing and immediate causes of the illness. In the family history we look for insanity, alcoholism, syphilis, epilepsy, tuberculosis, rheumatism and inquire into the general health of the parents at the time of conception, and of the mother during pregnancy and lactation. If any constitutional disease existed in the parents or grandparents, we note its effect on the general health of their children; we learn whether or not any of the brothers or sisters had convulsions in infancy; if in their illnesses they were delirious; if puerperal convulsions accompanied pregnancy; if uremia were present at any time; if they have been nervous or in any manner showed signs of mental instability. In the personal history we carefully review all previous illnesses, paying special attention to the mental conditions during each one; we look for any disease or accident in the early life of the patient, which may have had some bearing on the proper development and training of the nervous system. The present physical examination should be complete, the secretions and excretions carefully examined to determine the manner in which the vegetative organs are performing their duty and, if pathologic conditions are found to exist, we note the effect produced on the general organism. Frequently the mental condition directs attention to faulty metabolism or imperfect elimination. Yet this is not at all strange, since the brain is dependent on the general circula-

*Read before the King County Medical Society, Seattle, Wash., March 20, 1905.

tion for its nutrition and also the removal of its waste material. It stands to reason that changes in other organs which affect the circulation will soon affect the nervous tissue and, the action of the brain being always on "dress parade" as it were, we are sure to notice a derangement in it before we note the condition of other organs.

Each individual is endowed with a nervous system of a certain degree of stability and, in order to adjust himself properly to his surroundings, it is necessary that this nervous system be properly nourished and its waste material freely removed. Any condition which disturbs this will soon produce mental symptoms. Yet, it is safe to say that the more unstable the nervous organization of the individual, the more easily will it be deranged and the longer it is exposed to this condition, the more permanent will the mental change become.

The clinical symptoms in those cases vary greatly according to the rapidity with which the system is unloaded of the toxins, as to the amount of food and rest obtained by the individual, as to the manner in which digestion, assimilation and metabolism is conducted and, to a marked extent, as to the degree of mental stability of the individual to begin with. In some cases a dull headache, irritability, inability to work any length of time, loss of memory and mental fatigue represent the symptoms. In others drowsiness, slow, labored respiration, constipation and a full, bounding pulse, or it may be explosive in character, when we have a flushed face, dilated heart, convulsions, paralysis or twitching of muscles, pulmonary edema and death from bulbar palsy.

The peculiar arrangement of the cerebral circulation seems to invite this intoxication for the arterial pressure is high, especially so on the left side where the vertebral and carotid form almost a straight line from the heart. The floor of the fourth ventricle where so many cranial nerve nuclei are located has a very direct arterial supply.

The veins are fewer but larger than the arteries; the superior ones of the cerebrum drain up hill and empty into sinuses against the blood stream and fibrous bands are found stretched across the lumina of the sinuses. All these things tend to delay the return circulation and favor the formation of thrombi and venous congestion.

The capillaries are very small but numerous. A great many lymph spaces are found in the most minute parts, around the nerve cells and in the sheaths of the nerve fibers. These spaces

connect with the subpial space, permitting fluid to pass from one to the other. In covering the blood vessels with neuroglia tissue it would seem as though Nature attempted to protect the nervous tissue from circulatory changes, but yet we find the nerve cells were left uncovered and practically bathed in the lymph stream and it is through this arrangement that toxins affect the nervous tissue.

The product of faulty metabolism is carried by the blood stream to the nerve cells. Acting as an irritant it stimulates the cells to greater activity at first. This is followed by a swelling of the cells with congestion of the surrounding tissues, increased blood pressure with lymph stasis, failure to remove broken down tissue, re-intoxication of cells and later exhaustion from overwork and impaired nutrition, resulting in disintegration of cells and arrest of function with formation of neuroglia tissue.

These conditions are illustrated in the two following cases. The lymph stasis and engorgement of the vessels over the frontal lobes account for the mental confusion, while the same condition over the parietal lobes is responsible for the restlessness and motor irritation, death in each case being due to bulbar palsy from edema of the tissue in the floor of the fourth ventricle.

In case 1, although there was a previous history of nephritis, it seemed to have been overlooked when the mental derangement took place and the treatment directed only to the mental symptoms. In case 2, the nephritis, with a gastro-intestinal intoxication, was enough to completely derange this already unstable individual. It is in this class of patients, in whom the mental symptoms are so liable to completely mask the physical cause of the illness, that we completely overlook it, and our patient becomes exhausted and beyond medical aid while we are attempting to quiet the mental excitement.

Case 1. A. K., male, age 42, married, a native of Denmark, had a common school education and was employed in farming. Father died of rheumatism, aged 60; mother of paralysis, aged 61; a brother of liver trouble, aged 40. No information of early personal history obtained. During the past year he suffered from kidney disease. Present illness began February 20, 1904. He talked strangely on religious and lodge topics; later became noisy and restless, incoherent and violent; slept poorly and refused food. He was treated at home with sedatives and hypnotics for seven days, then taken out of bed and driven a few miles to a railroad station, taken twenty miles on a train to jail, examined by the probate judge and sent to an insane hospital, a distance of sixty miles, with a drive of twelve miles on a cold night. From this I judge his physical condition was overlooked. On examination I

found the following conditions: Nutrition poor, flesh soft and flabby, skin dry and hot, vitality much impaired; body temperature, 104° ; heart dilated, sounds indistinct; pulse 140, irregular and intermittent, arteries slightly thickened; chest flat but symmetrical, circumference 90 cm., expansion could not be obtained, resonance of lungs impaired; respiratory sounds rough and loud, moist rales heard in places, beginning pulmonary edema; respiration 40; abdomen flat and rather dull; tongue dry, brown and coated, breath foul; appetite poor and bowels constipated.

Urine examination. Quantity in 24 hours, 125 cc., sp. gr. 1024, acid, urea 1.7 per cent., phosphoric acid .4 per cent., chlorides 1.8 per cent., sulphates 1 per cent., indican normal, albumin .2 per cent., biliary coloring matter present, epithelial casts and a few leucocytes.

Ocular muscles and those of face and tongue under fair control; pupils 5 mm., reaction to light and accommodation slight; hand grasps could not be tested, neither could the knee jerk; coordination of arms and legs poor. His appearance was untidy and indifferent. He seemed exhausted, was confused and excited, speech incoherent and muttering. He seemed to have both visual and auditory hallucinations, was very restless but could not injure himself on account of his feeble condition. He died 36 hours after reaching the hospital. About 6 hours before death he passed into a semi-stuporous condition. Areas of vaso-motor stasis appeared over the body. Lungs became edematous, heart's action feeble. Temperature remained about 104° . He passed only 175 cc. of urine in 48 hours.

Autopsy 11 hours after death. Scalp adherent to pericranium, thick and fibrous; dura thickened and adherent externally, rough and adherent internally, along median line; dark clots in longitudinal sinuses, vessels engorged; subdural space contained fluid; pia thickened; vessels congested, especially the veins; fluid under pia.

Brain, 1375 gm. There was a subarachnoid extravasation of blood over the foot of second and third frontal convolutions and small patches scattered over the whole convexity of the brain; circle of Willis incomplete, the posterior communicating arteries being absent. The vessels were small and their walls thickened; cranial nerves were hardened; velum interpositum adherent to the pillars of the fornix, its vessels deeply injected; the pineal gland was cystic. The ependyma of the ventricles was edematous, vessels in floor of fourth ventricle deeply injected, small thrombi in lentiform nucleus of left side, pons and medulla softened.

Right lung, 510 gm., hemorrhagic extravasation in patches over the surface, edema of lower lobe; left lung, 368 gm., old fibrous scars at base of this lung, edema throughout.

Pericardium free from disease, small amount of fluid in cavity. Heart, 255 gm., right ventricle distended by fluid blood and clots; left ventricle contracted, containing small amount of fluid blood; both auricles distended; valves competent and free from disease;

some chronic endocarditis in left ventricle; muscles soft and dark.

Spleen, 113 gm., capsule thickened and adherent; pulp dark and fibrous.

Liver, 1219 gm. Capsule thick and adherent; surface mottled dark, with sago grain nodules; vessels congested.

Gallbladder, duct patulous, bladder full of dark, foul smelling, thick fluid.

Right kidney, 141 gm. Capsule thick and adherent; it was deeply injected, marked medullary increase; stellate veins prominent. Left kidney, 155 gm., capsule thick and adherent, pyramids small, medullary increase, substance injected. Suprarenal glands cystic, stomach empty, intestines empty and flat. Appendix free from signs of disease. Bladder empty, walls relaxed.

Case 2. T. L., male, age 26, single, had a common school education and was employed as a laborer. His father and a brother were insane. He was always in good health until a year ago when he had appendicitis, was operated and made an uneventful recovery. He was always looked on as peculiar, but not until January 25, 1903, did he become disturbed. He then became noisy, excited, preached, wandered from home and remained out all night in a snow storm on the prairie.

On January 28 he was taken to an insane hospital. He was fairly nourished; flesh was firm, skin warm, dry and elastic; temperature 99°; right side of the heart was dilated and arteries thickened; pulse 100, irregular, full and bounding; circumference of chest 93 cm.; respiration 22, the sounds dry and harsh and resonance impaired posteriorly. The abdomen was full and tympanitic. Tongue dry and coated, breath very foul and teeth covered with sordes. He refused nourishment; digestion was impaired and bowels constipated.

Examination of urine. Sp gr., 1021; color yellow, clear; reaction, acid; urea 2.5 per cent.; phosphoric acid .28 per cent., chlorides .8 per cent.; sulphates .7 per cent.; indican increased, marked traces of albumin and albumoses; uric acid crystals and hyaline casts.

The ocular muscles and those of the tongue and face were normal; pupils 5 mm. in diameter, reacted but slightly to light and accommodation. No tremors of muscles of face and tongue, but a coarse, intention tremor of the hands. The knee jerk and hand grasps could not be tested; the coordination of the arms and legs poor. He was untidy and indifferent; expression anxious; he was confused and excited, at times pugnacious and destructive; his hands and feet were cyanosed and moist, and he appeared exhausted.

He failed gradually, was always restless and confused, very wakeful, refused all nourishment and was fed mechanically; passed very little urine. Bulbar palsy developed, lungs became edematous and heart's action very feeble; temperature ran up to 105° and he died six days after admission.

Autopsy, three hours after death. Scalp thick and dense, ves-

sels deeply congested, internally adherent to the pericranium. Subdural space contained fluid; dura roughened externally but smooth internally; hemorrhage over left parietal region, near median fissure; dural vessels engorged; clots in lateral sinuses; pia thickened with white patches along its vessels, which were deeply injected; 200 cc. of cerebro-spinal fluid. Brain weighed 1332 gm. No definite subdivision of frontal lobes on either side and the fissuration was perpendicular; the angular gyrus was small and imperfect; the circle of Willis was complete and the cranial nerves were bound down by adhesions; the velum interpositum thickened and its vessels injected; ependyma of the ventricles edematous and the vessels injected, most marked in the fourth ventricle; the white matter was softened and also the pons and medulla. Both lungs edematous. The heart was filled with fluid blood and chicken fat clots; all the valves were competent, the cusps of the aortic thickened; some chronic endocarditis noted. Spleen was congested and fibrous. Liver, capsule adherent; substance oozed blood on section. Kidneys, capsule adherent; stellate veins prominent, medullary substance increased; pyramids small and distorted, substance congested.

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CLARENCE A. SMITH, A. B., M. D.
Editor in Chief.

JAMES B. EAGLESON, M. D.
Managing Editor.

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AUGUST, 1905.

NO. 8

The Washington State Medical Association meets in Tacoma late in September or early in October. Program Committee, Drs. Bean, E. M. Brown and Quevli, to whom should be sent the titles of papers to be read.

THE PORTLAND A. M. A. MEETING.

It has been a cause of much gratification to hear the universal declaration on the part of visitors from all sections of the land that this was one of the great meetings of the Association. It was a case of the croakers confounded as concerned those who, from the first affirmed such a meeting could not be successfully held in the extreme Northwest.

Abundant accommodations were provided for all, in spite of an influx of visitors to the fair. Convenient meeting places were provided for the sections so that the machinery of the Association worked smoothly. The weather could not have been more propitious if made to order, the few hot days of the summer having arrived and departed before the session opened.

While their friends at home were dying of sunstroke or fleeing to the mountains and sea shore to escape from torrid days and nights, the guests from the East had a demonstration of the unrivaled summer climate of the Northwest, with its balmy days and refreshing nights.

The old timers stated that the papers, while less in number than customary in cities of the East, were equal in quality to those

of former years and sustained the past reputation of the Association. The only criticism that has reached our ears was on the score of too little discussion of papers, which forms, perhaps, the most useful feature of meetings of this nature. If there were a deficiency in this respect, its explanation undoubtedly lay in the fact that the physicians of the West, who do not regularly attend these meetings, are not so ready in discussion as those of the East, who have been trained by years of experience.

While the number of the best known men of our ranks was not so large as is usually found at meetings nearer the Atlantic coast, yet many of the well known faces were seen, from all sections of our country. In fact, considering the long journey, unfamiliar to a large proportion of them, the gathering of notables was greater than might have been expected. For the Western physician, who has not the acquaintance of the medical leaders of the East, the greatest satisfaction obtainable is not derived so much from the papers read as from personal contact and conversation with the men whose books he has read and with whose views he is familiar from journal writings. Therefore one of the most useful results of this meeting will be the closer relations and friendships formed between members of the profession living in widely separated states. While reference to individuals would be superfluous and unnecessary where so many were received with pleasure and satisfaction, we would like to comment on the hearty welcome displayed and friendship entertained for President McMurtry and retiring President Musser. No man could have been elected to the presidency for the ensuing year whose selection would meet with greater favor in the Northwest than Dr. W. J. Mayo, who has a host of friends and admirers in this section. We hereby extend to him our congratulations.

The entertainment offered the Association by the Portland profession was said to exceed in quantity and quality anything in past years. Receptions and other social events, beside excursions and rides, were scheduled in such profusion that every one's time was more than filled. In fact, some visitors explained their infrequent attendance at the Association meetings by the fact that they had little time for this after visiting the fair, seeing the attractions of the country and enjoying all the entertainments provided. Our Portland friends have established a record for hospitality and sociability that will stand unequalled in the future and for which this meeting will stand among the traditions of the Association. We believe the profession in no other city of the Northwest could

have offered such a royal entertainment. Their attentions were continuous in general receptions, private dinners, etc. The guests and friends, forming large bodies of people, were admirably accommodated at the different evening entertainments. The visitors from the East will not soon forget the beauties of Nature as displayed in the scenic trip up the Columbia nor her bounty as illustrated by the toothsome collection of forty-pound salmon at that evening's dinner.

The physicians of Washington improved the opportunities of receiving different delegations while visiting their cities, showing them the local attractions and forming the acquaintance of individuals. Local entertainment was thus extended by the profession of Spokane, North Yakima, Seattle and Tacoma. They all received parties going to Portland and the two latter had the pleasure of entertaining others on the return trip.

In spite of the pessimists who declared the long journey would prohibit a satisfactory attendance, the registration exceeded 1,700. While not equal to the numbers in the Eastern centers of population, it was greater than the expectations of conservative estimates. The comprehensive scope of this great organization is indicated by the fact that physicians were present from fifty states, territories and possessions, besides those from foreign nations. Oregon naturally headed the list with a registration of 233. We are pleased to state that Washington came next with 177, and California third with 165. Several of the states of the Middle West sent delegations of good size but Pennsylvania alone from the extreme East was largely represented. Oregon's neighbors, north and south, displayed good judgment in improving this opportunity for so large an attendance on this rare gathering.

It is not in our province at this time to criticize the program presented farther than to comment that its quality from a scientific and instructive standpoint was well worthy of this large assembly of kindred minds and that the papers should be read by the members when officially published at a later date. It is a satisfaction to call attention to the physicians of the Northwest who appeared on the program. Washington was represented by C. W. Sharples and P. W. Willis, of Seattle, in the Surgical Section; G. B. McCulloch, of Seattle, and Alice M. Smith, of Tacoma, in the section on Diseases of Children. From Oregon were A. D. Mackenzie and Woods Hutchinson, of Portland, in the section of Practice of Medicine; E. F. Tucker and G. S. Whiteside, of Portland, in the section of Obstetrics and Diseases of Women; G. F. Wilson,

of Portland, in the section on Surgery; William House, of Portland, in the section on Nervous and Mental Diseases. Utah was represented by H. D. Niles, of Salt Lake, in the section on Surgery.

THE WASHINGTON STATE MEDICAL ASSOCIATION.

The annual meeting will be held at Tacoma late in September or early in October, the exact date of which will be announced in our next issue. At one time it was suggested to omit this meeting, holding merely a business session, the fear being expressed that the members would not attend after having taken the time so recently for the A. M. A. meeting at Portland. Already, however, the view seems to prevail that the Association should not only meet as planned, but that this should prove an unusually profitable and interesting gathering. The inspiration of the recent Portland meeting will undoubtedly extend to this and, with that as a model in our minds, improvements should follow over experiences of the past.

Special interest will center about the presence of Dr. J. R. McCormack, the genial and enthusiastic organizer of the A. M. A. He is already known to many members of the Association from his recent visits to county societies in some of the larger cities. His views on scientific, professional and business matters are of great interest and importance to every physician of our western states. It is to elevate and strengthen the profession that he is laboring and devoting his time. President Yocom desires to emphasize the fact, at this time, that the Association could in no manner be more greatly benefited than by presenting a large attendance to hear the doctor's views and expressions.

The committee on arrangements is composed of members from the Pierce County Society, divided into sub-committees as follows: Program, Drs. Bean, E. M. Brown and Quevli; finance, Drs. Green, Libbey, J. R. Brown and Sargentich; halls, reporting, etc., Dr. Dewey; entertainment, Drs. Hicks, Love, McCreery and McCutcheon; entertainment of ladies, Dr. Carsley Balabanoff.

The success of the meeting will depend chiefly upon the response, on the part of the members, to the call for papers. We wish to urge that titles of papers be sent to the program committee at as early a date as possible. It is hoped that all parts of the state will be represented and that papers may be prepared on many of the important and interesting subjects now under general discussion. At meetings of the county societies are generally suspended at this season, this appeal must be presented to individuals.

Let each member feel that he has a personal responsibility for the literary success of this meeting. Several papers of value have already been promised. In our next issue we shall aim to present a preliminary program which we trust may display an interest from many parts of the state.

MEDICAL ORGANIZATION.

Although this subject has often been mentioned in this journal and is of frequent discussion elsewhere, its presentation at this season is timely. It is especially applicable to the profession of Washington, among whom medical organization, as found established in other states, is on a low plane. The State Association is the criterion of the organization in question and, in many states, includes a large majority of the reputable practitioners. In this state, under the old, loose form of organization, the names of many members were carried on the role who were dropped as not being in good standing, on the adoption of the new scheme of organization. Since that time the enrollment has never reached 400, a membership unfortunately small, considering the state contains more than a thousand practitioners. It is unnecessary to rehearse the benefits accruing to the individual, as well as to the profession at large, by a comprehensive organization. Illustrations of its effectiveness are presented, in these days, among all classes of business and trades. Practically the only opportunity for the average practitioner to discuss medical questions and obtain the views of his fellows is at the meetings of his county society. If he desires to get out of the rut of laziness and apathy into which he daily tends to fall, he should labor to increase the membership, interest and life of this society. Since this is the basis of the existing scheme of medical organization, the prosperity of the State Association necessarily depends entirely on that of the county societies. Dr. McCormack lays great stress on the importance of including in the local society every reputable physician of the county, regardless of school or medical bias. His purpose is to make the profession a harmonious body that will be in a position to accomplish something for the benefit of the individual physician, making him a better and more efficient practitioner and render it a recognized power in the state to attain purposes designed for the general welfare. Ineffectual medical legislation in past years, has resulted, in part, from lack of united effort on the part of the supporters of certain measures. Bills of a medical nature should be introduced into the

legislature at the instance of a committee of the State Association which has duly considered each of them and has organized a support that will assure a reasonable expectation of success, instead of leaving them to individual initiative. At the fall meeting of the Association the committee on legislation should be instructed to begin work on matters to be brought before the next session of the legislature and thus something tangible will probably be accomplished.

WASHINGTON STATE BOARD OF HEALTH.

The regular semi-annual meeting of the board was held at Vancouver, Wash., July 15.

The subject was discussed of sanitation of steam, street and sleeping cars. A committee was appointed to investigate the matter of disinfecting seats, bedding, etc., the prevention of communicable diseases by this means, spitting in cars and all matters pertaining to the subject.

The unsanitary condition of restaurants was considered and the probability of conveying disease by improperly cleansed dishes and other means. A committee was appointed to report on this subject.

The prevailing neglect to report typhoid and tubercular cases was discussed. It was stated that 50 per cent. more deaths occur in the state from tuberculosis than cases of the disease reported. The secretary was instructed to inform the physicians of the state that, hereafter, when a death occurs from typhoid fever and the case has not been previously reported, the attending physician will be prosecuted.

A motion was passed commending local boards of health that are striving to secure pure milk supplies and also that the board will aid by cooperation in all such efforts.

A preliminary organization was made of the Pacific Coast Public Health Association, which the officers of state, county and city boards of health are invited to join. The states of Washington, Oregon and California were represented. The state boards of health of Utah, Nevada and Arizona agreed to join. A like invitation was extended to British Columbia, Montana and Idaho. Officers for the ensuing year were elected as follows: President, M. K. Foster, of Sacramento; secretary, R. C. Yenney, of Portland. These, with E. E. Heg, were appointed an executive committee to perfect an organization. This is not intended to conflict with the American Public Health Association, an international association

including the United States, Mexico and Canada. Its objects is to consider affairs of the public health affecting the states of this coast.

Newly appointed members of the board are Wilson Johnson of Colfax and P. Frank of North Yakima, the old members being J. M. Semple, of Spokane, president; E. E. Hcg, of Seattle, secretary; J. R. Yocom, of Tacoma, and S. B. Nelson, of Portland.

BRITISH COLUMBIA MEDICAL ASSOCIATION.

The annual meeting of this Association was held at Vancouver, B. C., July 18-20. Over forty members and a dozen visitors were present. A very interesting and instructive address was delivered by President Brydon-Jack. Papers were read by Drs. Fagan, of Victoria; Glen-Campbell, of Stephens; McKechnie, of Vancouver, and Walker, of New Westminster. Col. Tracey, city engineer of Vancouver, gave an interesting account of the septic tanks in use in his city, illustrated by lantern slides. On the afternoon of the second day, July 19, the members of the Association visited the asylum for insane, at New Westminster, where they were entertained at a garden party by Miss Doherty and Dr. C. E. Doherty, medical superintendent of the institution. The following officers were elected for the ensuing year: President, George E. Drew, New Westminster; vice-president, O. Weld, Vancouver; treasurer, I. D. Helmcken, Victoria; secretary, R. E. Walker, New Westminster. The next annual meeting will be held at New Westminster.

PROGRAM FOR THE WASHINGTON ASSOCIATION MEETING.

The following is an abstract of the program of the annual meeting. It is proposed to consider a number of important subjects under the headings of symposia.

SYMPOSIUM ON PREVENTION OF INFECTIOUS DISEASES. Acute contagious diseases of childhood; typhoid fever; tuberculosis.

SYMPOSIUM ON DIGESTIVE AND NUTRITIVE DISEASES OF CHILDREN. Papers on food and feeding of infants and young children in health and disease, including clean milk and dairies.

SYMPOSIUM ON ARTERIOSCLEROSIS. Pathology and etiology; symptoms, clinical course, complications and sequelæ.

SYMPOSIUM ON DISEASES OF THE THYROID GLAND. Goitre; exophthalmic goitre.

SYMPOSIUM ON CHRONIC DYSPEPSIA AND INDIGESTION IN ADULTS. Pathology, symptoms and diagnosis. General symptomatology of upper abdomen, with methods of examination of stomach. Chronic gastric ulcer and sequelæ. Cholelithiasis; chronic and subacute appendicitis.

SYMPOSIUM ON EARLY DIAGNOSIS OF MALIGNANT DISEASE. Breast; uterus; rectum; stomach; lip; malignant changes in benign growths.

SYMPOSIUM ON EARLY DIAGNOSIS OF TUBERCULAR DISEASE. Respiratory organs; glands; bones and joints; generative and urinary organs; peritoneum.

PROPHYLAXIS OF VENEREAL DISEASES.

MEDICAL NOTES.

The Washington State Medical Examination. The July examination was held in Seattle, on the 5th, 6th and 7th. Ninety-five applicants appeared, a smaller number than a year ago, but apparently sufficient for the needs of the state at the present time. As the returns are not yet all in we cannot announce the result at this time. The board has established a new classification of subjects that reduces the number of papers to nine and gives one paper to each of the nine examiners. Thus medical jurisprudence and preventive medicine are combined in one paper, also diseases of women and obstetrics; anatomy and physiology; nervous diseases and diseases of eye and ear; chemistry and toxicology; histology, bacteriology and pathology; practice of medicine and diseases of children; materia medica and therapeutics. The total number of questions for the examination is placed at one hundred, giving ten to each of seven papers and fifteen to the remaining two. This seems a wise arrangement, permitting a longer period for each examination and giving an equal distribution of labor among the examiners. The test of fitness can thus be as well determined as by means of a greater number of papers.

The members of the examining board are C. S. Kalb and E. D. Olmstead, of Spokane; C. W. Sharples and J. B. Eagleson, of Seattle; H. A. Wright, of Wilbur; E. E. Shaw, of Walla Walla; P. B. Swearingen, of Tacoma; G. W. Overmeyer, of South Bend; A. E. Stuh, of Colfax.

Souvenir Number of the Medical Sentinel. We congratulate our Portland contemporary on the size and beauty of its souvenir issue, appreciating the labor required to compile its contents. The editor calls attention to the fact of the journal having entered upon the second half of a quarter century of existence. For the Northwest this is approaching old age and we therefore offer our felicitations upon its evident vigor and activity. The published historical sketch of medical societies will prove of interest to the physicians of Oregon and should be a matter of valuable record for them. The reproduction of the substance of the first medical journal published on the Pacific coast, the predecessor of the *Sentinel*, shows the changes and progress in medical journalism during the past thirteen years. In passing, we would, in a friendly spirit, call the editor's attention to the "Roster of State and Local Societies," wherein is recorded the "Seattle Society," with D. A. Mitchell president and G. S. Peterkin secretary, and state that there does not now and never has existed a society by that name. The gentlemen mentioned were officers of the King County Medical Society three years ago.

A. M. A. Officers in the Northwest. Dr. K. A. J. Mackenzie, of Portland, was elected second vice-president of the association. Dr. E. E. Heg, of Seattle, was elected secretary of the section on Hygiene and Sanitary Science.

Surgery, Gynecology and Obstetrics. In spite of the numerous journals published on all branches of medicine and surgery, there is

always room for another when it appears of the highest class. The first number of *Surgery, Gynecology and Obstetrics* has been issued. It is published in Chicago. Its editorial staff is headed by Dr. Nicholas Senn, the second on the list being Dr. J. B. Murphy. The remaining editors, with a long list of collaborators, include the leading surgeons and gynecologists of the country. With such a backing it is superfluous to predict a successful future for this journal. This number contains original articles by such well known men as Senn, Montgomery, Van Hook, Boise, Webster, Davis, Williams, Edgar, Coe and Fry. The paper, type and illustrations are of the best quality and the journal, as a whole, is one of the most attractive and instructive presented to the profession.

OUR PRIZE OFFER.

We wish to call special attention to the prizes offered by Northwest Medicine for the attention of original work among physicians on the Pacific coast, either in the United States or British Columbia. They are \$50 and \$25 respectively, for the first and second prizes, for papers on subjects selected by the writers, showing the results of original work in some branch of medicine or surgery. Papers are to be submitted to the editor on or before the first of next September. Each shall be signed by a fictitious name, symbol or motto. An accompanying envelope, bearing the same signature, shall contain the writer's name and address. The papers will be referred to a committee of judges, one each from Seattle, Tacoma and Portland, who will be selected at a later date. The successful competitors will be announced at the next meeting of the Washington State Medical Association, to be held at Tacoma, in September. All papers submitted will remain in the hands of the editor for future publication if desired for this purpose.

TO OUR READERS AND CONTRIBUTIONS.

All material for publication must be received by the twentieth of the month preceding publication. Articles will be illustrated by halftones or etchings when accompanied by photographs or drawings for the same. Reprints of contributed articles can be obtained at the cost of publication, from the Metropolitan Press, publishers of the journal. A limited number of additional copies of the journal will be supplied to contributors, if a request is made for them.

Questions Presented by the
STATE MEDICAL EXAMINING BOARD OF WASHINGTON
July 5, 6 and 7, 1905
SEATTLE.

MEDICAL JURISPRUDENCE AND PREVENTIVE MEDICINE.

1. Differentiate between wounds inflicted before death and those inflicted after death.
2. Define insanity from a medical legal standpoint.
3. What constitutes malpractice?
4. What are the duties and rights and privileges of a medical expert?
5. Give in detail, the inspection from a medical legal standpoint of a body found dead.
6. Suppose the only available water supply of a certain city contained impurities, what municipal measures should be used to enable the community to continue to use the same supply?
7. What prophylactic measures should be adopted at Panama and for what reasons?
8. Suppose that a case of smallpox was discovered in a lodging-house, what steps should be taken towards the prevention of the spread of the disease?
9. How do you prevent the spread of yellow fever?
10. What prophylaxis would you advise during an epidemic of cerebro-spinal meningitis?

DISEASES OF WOMEN AND OBSTETRICS.

1. Give the differential diagnosis between ovarian cyst and extra-uterine pregnancy.
2. In a case of salpingitis would you use the vaginal route for drainage, and give your reasons for or against.
3. Give the diagnosis and treatment of gonorrheal endometritis.
4. Name the pathologic conditions due to a laceration of the cervix and the disease that it predisposes to. Give the method of repairing.
5. Name three forms of uterine fibroids. The symptoms of each and the treatment.
6. What are the indications for producing premature labor?
7. Give the management of an arm presentation.
8. Give the cause and treatment of (a) after-pains, (b) suppression of the lochial discharge.
9. Name the various head presentations and give the mechanism of one.
10. Name four concomitant conditions of pregnancy and give the treatment of each.

ANATOMY AND PHYSIOLOGY.

1. Name the bones of the face.
2. Name the muscles of the leg.
3. Describe and locate the prostate gland and give its surgical bearing.
4. Name three general classes of joints and give examples of each.
5. Name the branches of the abdominal aorta.
6. Give the nerve supply of the alimentary canal.
7. Name the contents of the thorax.
7. Name the sinuses of the brain, both vault and base.
9. Describe the nervous and muscular mechanism of the respiratory act.
10. Describe the manner in which the mammary glands perform their function.
11. What are the physiologic causes of sleep.
12. Give the process of replacement of the temporary by the permanent teeth.
13. Describe the process of osmosis and give examples in the human economy.
14. Describe the digestion of a meal of roast beef and boiled potatoes.
15. How are the fat cells developed?

NERVOUS DISEASES AND DISEASES OF EYE AND EAR.

1. Give the etiology, pathology and symptoms of anterior poliomyelitis.
2. Differentiate between cerebrospinal (epidemic) meningitis and tubercular meningitis.
3. What is migraine? Give the etiology and symptoms.
4. Briefly describe the various forms of chorea. Give the prognosis of each form.
5. Define and give the etiology, symptoms and prognosis of (a) simple neuritis, (b) multiple neuritis.
6. Make a differential diagnosis between acute catarrhal conjunctivitis and iritis.

7. Outline the treatment of ophthalmia neonatorum.
8. Differentiate between cataract, corneal opacities and pterygium.
9. Define the most frequent manifestations of syphilis in the eye.
10. Give the treatment and sequelae of chronic suppurating otitis media.

SURGERY.

1. Tuberculosis of knee-joint, give diagnosis, prognosis and treatment.
2. Tabulate differential diagnosis between three varieties of hip-joint dislocation. Give method of reduction in each.
3. How do you treat a deep-seated infection of foot?
4. Name parts involved in Colles fracture. Give treatment for same.
5. Describe fully ligation of subclavian artery in its most accessible portion.
6. Give symptoms of osteosarcoma of the humerus. Prognosis and treatment of same.
7. Osteomyelitis. Give diagnosis, prognosis and treatment.
8. Give symptoms of stone in kidney and treatment of same.
9. Give symptoms of strangulated hernia, and describe operation for relief of same.
10. How do you treat a sprain of the ankle-joint?

CHEMISTRY AND TOXICOLOGY.

1. How does chloride of lime act as a disinfectant?
2. Describe the difference between organic and inorganic chemistry.
3. How would you test for albumen? Give two methods.
4. What is an ion?
5. Describe a test for excess of hydrochloride acid in gastric contents.
6. What is the treatment of arsenical poisoning?
7. Give symptoms of iodoform poisoning.
8. Give the process by which strychnin is isolated from a vomit.
10. How would you determine the presence of organic matter in water?

HISTOLOGY, BACTERIOLOGY AND PATHOLOGY.

1. How would you prepare a specimen of suspected tissue to transmit to a pathologist?
2. What are the component parts of a cell?
3. Give the histologic elements of compact bone.
4. Describe the cross-section of the spinal cord.
5. Name the histologic elements of the blood. Describe their action in an inflammatory process.
6. Describe a section of normal kidney, also one in a state of parenchymatous inflammation, and one in a state of interstitial inflammation.
7. Describe staphylococci pyogenes and streptococci pyogenes and their arrangement. Also diplococci. Name a pathologic condition in which each is the exciting cause.
8. Name and describe the micro-organism which causes diphtheria. What culture medium is best adapted to its growth? Describe your method of confirming a suspected diagnosis.
9. How would you prepare tubercular sputum for examination? How high the power and what kind of lens would you employ for bacteriologic work?
10. Name in their order and briefly describe the various stages of acute croupous pneumonia, also give the macro- and microscopic appearance in the third stage.

PRACTICE OF MEDICINE AND DISEASES OF CHILDREN.

1. Give briefly the etiology, pathology and diagnosis of typhoid fever. Enumerate the sequelae.
2. Name three forms of anemia and give the pathology and symptoms of two forms.
3. Give the etiology, pathology, symptoms, diagnosis and complications of lobar pneumonia.
5. Give the symptoms of pericarditis and endocarditis and make the differential diagnosis between the two.
6. Define cirrhosis of the liver, giving two forms, the symptoms and the differential diagnosis.
7. Give the physical signs of phthisis pulmonaris in the two stages of consolidation and cavity formation.
8. Give the symptoms, complications and sequelae of acute articular rheumatism.
9. Differentiate between empyema and pneumonia.
10. Give the etiology, pathology, diagnosis and complication of rachitis.
11. Give the various forms of stomatitis with etiology and symptoms of each.
12. Give briefly the differential diagnosis between epilepsy, convulsions due to intestinal irritation and uremic convulsions.
13. Give the symptoms of pertussis and differentiate it from acute bronchitis.
14. What is rotheln? Give the symptoms and course.
15. What alterations would you make in modified milk to overcome constipation.

MATERIA MEDICA AND THERAPEUTICS.

1. What are alkaloids? Give the names of four drugs from which they are derived, their dosage and the indications for their use.
2. Name a contraindication to the use of (a) phenacetin, (b) pilocarpin, (c) tartrate of antimony potash, (d) strychnin.
3. Give a rule of dosage for a child.
4. Write a prescription for a liquid cough-mixture of four ingredients.
5. Name two drugs, of different groups, that are physiologically antagonistic in their action to jaborandi.
6. From what is salicylic acid derived? Name three drugs into the composition of which it enters. Give their dosage and therapeutic indications.
7. What is the composition and preparation of a sedlitz powder? What is the indication for its use?
8. Give two drugs that are commonly used in treating anemia, two preparations of each and the directions for the administration of each.
9. Give the medicinal treatment, name the drugs and the proper method of administration for typhoid fever, and the complication of the febrile period.
10. What is the chief therapeutic indication for water, and name the methods for using the same.

HOMEOPATHIC MATERIA MEDICA.

1. Give three leading symptoms calling for each of the following remedies; aconite, bryonia, gelsemium, colychnin, lycopodium.
2. Describe a nux vomica patient.
3. Differentiate the cough of tartar emetic, belladonna, cuprum, hyoscyamus.
4. Differentiate bladder symptoms of cantharides, terebinthina, cannabis sativa.
5. Give pen picture of a typical silicea patient.
6. What are the bowel symptoms of each of the following remedies: aloes, podophyllum, nux vomica, croton tig.
7. In prescribing for an infant distinguish symptoms of chamomilla, calcarea carb.
8. Give the eye symptoms of euphrasia, pulsatilla, natrum mur.
9. Describe the tongue of rhus tox, lachesis, nux vomica, mercury.
10. Give five leading symptoms calling for arsenicum alb.

ECLECTIC MATERIA MEDICA AND THERAPEUTICS.

1. Name five agents commonly used in (a) control of fever, (b) control of pain, (c) to induce sleep, (d) to control nervous irritability.
2. What agents would you use (a) to control a rapid heart, (b) in a slow, weak and debilitated heart.
3. Give the agents you would use in the treatment of chronic catarrhal gastritis.
4. What are the properties of rumex crispus, (b) arctium lappa, (c) phytolacca decandra, (d) when would you use them?
5. Give the medicinal treatment of septicemia.
6. What agents except antitoxin, if any, would you use in diphtheria, and why?
7. Write a prescription for (a) menorrhagia, (b) amenorrhea.
8. When would you use the following agents, (a) cimicifuga racemosa, (b) caulophyllum thalictroides, (c) dioscorea villosa, (d) leptandra virginiana, (e) althea officinalis.
9. Name five hepatics.
10. Name six diuretics.

The following changes in doses have been collated from the recently issued edition of the U. S. Pharmacopeia, by Osseward and Rubenstein, pharmacists, of Seattle.

WE WISH TO CALL PARTICULAR ATTENTION TO THE FOLLOWING CHANGES.

Tinct. Aconite Root	from 35	per cent	to 10	per cent	
" Veratrum Viridi	..	"	40	"	"
" Strophanthus		"	5	"	"
" Cantharides		"	5	"	"
" Capsicum		"	5	"	"
Basham's Mixture		"	2	"	4
Syrup Iodine Iron		"	10	"	5
					Iron

	PHARMACOPEIA 1890		NEW REVISION		AVERAGE DOSE
Aromatic Sulphuric Acid	18.5	per cent	20.	per cent	15 minims
Extract Opium	18.	"	20.	"	1 fluid drachm
Fl. Ext. Nux Vomica	1.5	"	1.	"	1 minim
Oleate Mercury	20.	"	25.	"	
Solution Iron and Ammon. Acetate (Basham's Mixture)	2.	"	4.	"	4 fluid drachms
Tinct. Sweet Orange	20.	"	50.	"	1 fluid drachm
" Columbo	10.	"	20.	"	1 fluid drachm
" Cantharides	5.	"	10.	"	5 minims
" Capsicum	5.	"	10.	"	8 minims
" Cardamon	20.	"	20.	"	1 fluid drachm
" Cinnamon	10.	"	20.	"	30 minims
" Quassia	10.	"	20.	"	30 minims
" Rhubarb	10.	"	20.	"	1 fluid drachm
" Serpentaria	10.	"	20.	"	1 fluid drachm
" Strophanthus	5.	"	10.	"	8 minims
" Tolu	10.	"	20.	"	30 minims
Wine Ergot	15.	"	20.	"	2 fluid drachms

	PHARMACOPEIA 1890		NEW REVISION		AVERAGE DOSE
Extract Nux Vomica	15	per cent total Alkaloids	5.	per cent Strychnin	¼ grain
Powdered Opium	13.	to 15. pr ct Morphin.	12.	to 12.5 pr ct Morphin.	1 grain
Deodorized Opium	13.	to 15. pr ct Morphin.	12.	to 12.5 pr ct Morphin.	1 grain
Solution Chloride Iron	37.8	per cent	29.	per cent	1½ minims
Syrup Iodide Iron	10.	"	5.	"	15 minims
TINCT ACONITE	35.	"	10.	"	10 minims
Tinct Belladonna	15.	"	10.	"	8 minims
" Cannabis Ind	15.	"	10.	"	10 minims
" Colchicum Seed	15.	"	10.	"	30 minims
" Digitalis	15.	"	10.	"	15 minims
" Gambir Co.	10.	"	5.	"	1 fluid drachm
" Gelsemium	15.	"	10.	"	8 minims
" Hyoscyamus	15.	"	10.	"	15 minims
" Kino	10.	"	5.	"	1 fluid drachm
" Lobelia	20.	"	10.	"	Expectorant 15 minims Emetic 1 fluid drachm
" Nux Vomica	0.3	" total Alkaloids	0.1	" Strychnin	10 minims
" Opium	1.3	to 1.5 pr ct Morphin.	1.2	to 1.25 pr ct Morphin.	8 minims
" Opium Deod.	1.3	to 1.5 pr ct Morphin.	1.2	to 1.25 pr ct Morphin.	8 minims
" Physostigma	15.	per cent	10.	per cent	15 minims
" Sanguinaria	15.	"	10.	"	15 minims
" Squills	15.	"	10.	"	15 minims
" Stramonium	15.	"	10.	"	8 minims
VERAT. VIR	40.	"	10.	"	15 minims
Ointment Ac. Carbolic	5.	"	3.	"	
" Sulphur	30.	"	15.	"	
Wine Colchicum Seed	15.	"	10.	"	30 minims

BOOK REVIEWS.

Edited by

Kenelm Winslow, M. D.

The Pharmacopoeia of the United States of America. Eighth decennial Edition. Official from September 1st, 1905. Agents, P. Blakiston's Sons & Co., Philadelphia.

Every physician in these United States should possess a copy of the U. S. Pharmacopoeia. This because it is the official authority for all the drugs regarded of sufficient value to list and describe. The list is determined by delegates from all the leading medical and pharmaceutical colleges and from the A. M. A. and leading officers of the Army and Navy. By following the U. S. P. one is immediately relieved of prescribing about seven-eighths of the medicinal preparations in use by physicians—with much benefit to one's patients and freedom from burdening one's mind with useless drugs. There are many improvements in the present edition. Perhaps it is not generally known that a new edition is printed every ten years and that the last appeared in 1894.

We note, first, that the average dose of all preparations is for the first time given, in the metric and apothecaries' system. Then the most important change is that of standardizing all tinctures so that they contain 10 per cent. of the crude drug. This alters the dose of tincture of aconite so that it is now three times as large (now 10 m.), of tinct. of veratrum viride so that it is four times as large (now 15 m.) and of tincture of strophanthus so that it is one-half as great (now 8 m.).

The dose of the syr. of ferrous iodide has been increased so that it is now double what it was (now 15 m.) The word fluid extract should now be properly written in prescriptions as follows: Fluidextractum.

Antidiphtheretic serum has at last been recognized officially; Serum Antidiphthereticum, average dose 3,000 units. No other serum is recognized nor need apply. Two glands have appeared of sufficient importance to warrant recognition: Glandulae Thyroideae Siccæ (dose 4 gr.) and Glandulae Suprarenales Siccæ (dose 4 gr.).

We do not recognize some of our old friends in their new guise: Thus arsenous acid becomes Arseni Trioxidum and carbolic acid, Phenol.

These we believe constitute the chief changes of importance to physicians.

Winslow.

Findley's Gynecological Diagnosis. A Treatise on the Diagnosis of Diseases of Women. For Students and Practitioners. By Palmer Findley, B. S., M. D., Assistant Professor of Obstetrics and Gynecology, Rush Medical College in affiliation with the University of Chicago; Assistant Attending Gynecologist to the Presbyterian Hospital, Chicago. In one octavo volume of 588 pages, illustrated with 222 engravings in the text and 59 plates in colors and monochrome. Cloth, \$4.75. net; Leather, \$5.75. net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

The second edition of Findley's *Diagnosis of Diseases of Women* is well worth our attention as it is the only work of its kind in the English language. It is very complete in scope. The first part is devoted to general diagnosis, that is, diagnosis based on such signs and symptoms as uterine hemorrhage, amenorrhea, dysmenorrhea, sterility, and leucorrhea. The many methods used in making a diagnosis, including physical exploration, the use of the various special instruments—the speculum, vulsella, dilators, sound, curette, microscope, and bacteriologic and blood examinations—are given a chapter each.

In the second part of the book we have chapters devoted to diagnosis of special conditions, as pregnancy, ectopic pregnancy, hydatiform mole, uterine malformations and displacements, diseases of the vulva, of the vagina, endometritis, fibromyoma, carcinoma, sarcoma, diseases of the tubes, diseases of the ovary, peritonitis and parametritis.

The third section is given to diagnosis of the urinary organs. A chapter on each of the following subjects may be found: On diagnosis of diseases of the bladder and urethra, on diseases of the ureters, on diseases of the kidneys, on frequent and painful urination and on incontinence and retention of urine.

The book is written very clearly. The macroscopic and microscopic pathology, on which the diagnosis is usually based, is treated most fully and there is a liberality of plates to make clear the text. In fact, this liberality is almost superfluous in the full page photographic reproductions of the vulva, in various normal physiologic states, so that it almost reminds one of Shakespeare's seven ages. Both diagnosis and differential diagnosis of each morbid state are detailed with great care.

Under the differential diagnosis of ectopic gestation there appears not to be sufficient emphasis laid upon the discrimination of this condition from abortion. Such a clinical error is common, owing to the frequent occurrence of uterine hemorrhage and escape of decidua in both abortion and ectopic pregnancy. The physician suspects in such a case that he has probably to deal with an abortion, especially if there have been present no symptoms of severe pain and rupture, but he should always make a bimanual examination in suspected abortion to rule out unruptured ectopic pregnancy. The existence of irregular uterine hemorrhage is often the most prominent sign in early unruptured ectopic pregnancy, which is set down by the physician to endometritis and all sorts of causes.

This also the author might have more fully mentioned, as diagnosis before rupture is of great value, and attention is not rarely first called to some such sign as the reviewer has experienced.

Taken as a whole, the book is a very valuable one for the general practitioner. Clear, practical, and so complete as to cover almost all the points of diagnosis of pelvic diseases which one would desire to have cleared up. The diagnosis on special signs alone, as on the existence of leucorrhea and hemorrhage, are particularly useful. The various special conditions suggested by the existence of such signs may then be further elucidated in the work of referring to the diagnosis of these special conditions in other parts of the book.

WINSLOW.

Progressive Medicine, Vol. II., June, 1905. A Quarterly Digest of Advances, Discoveries and improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 346 pages, 48 illustrations. Per annum, in four cloth-bound volumes, \$9.00; in paper binding, \$6.00; carriage paid to any address. Lea Brothers & Co., Publishers, Philadelphia and New York.

In the present issue are considered Hernia, Surgery of the Abdomen, Gynecology, Diseases of the Blood, Diathetic and Metabolic Diseases, Diseases of the Spleen, Thyroid Gland, Lymphatic System and Ophthalmology. These subjects are contributed by Clark, Coley, Foote, Jackson and Stengel.

In looking over the volume we were struck by some matter which seemed of especial interest. Under the unfailing heading, Appendicitis, Foote justly holds up to ridicule the advice of one, Jonnesco, who advocates delay in acute cases of appendicitis citing, in defense of this advice, his mortality of 44 per cent. in 25 cases he had operated upon—while with medication, he had lost but 14 per cent. in 21 cases thus treated. As the mortality in operations for acute appendicitis in this country is about 5 per cent., or less, our German friend would not get any hearing—even from Ochsner. In connection with this subject, Craig apparently gives solid reasons for denying the position that there is any connection anatomically or pathologically between the appendix and the ovary and shows that there is no such entity as the appendiculo-ovarian ligament. The logical reasoning would be that, in many cases reported of inflammation of both organs in the same patient, disease of the ovary and appendix occurred independently.

Clark gives much space to the consideration of cancer, especially of the uterus, reviewing all the recent contributions on this important subject. He gives the advice of Webster in detail who considers all pelvic operative cases in respect to the advisability of the abdominal or vaginal route—and with a general leaning to the former. Webster defines very clearly and concisely, however, the exact limitations of vaginal section which he considers justifiable. A very interesting article by Bumm is quoted freely, on the causes of sterility in women. Bumm, from a very careful study of the subject, believes that a large proportion of cases result from congenital defects and that gonorrhea in the female as an etiologic factor is much exaggerated. He shows that the assertion that 80 or 90 per cent. of sterility cases in women are due to gonorrhea is false, manifestly, since 15 to 20 per cent. of women in maternity hospitals suffer from chronic gonorrhea. Infantile development of the female genitalia, Bumm regards as a frequent source of sterility. The treatment consists, in most cases, in some form of mechanical treatment which is outlined in detail. Altogether it is a very instructive paper. Space does not permit us to touch upon the many interesting topics presented by Stengel, in connection with Blood Diseases, nor upon the matter provided by Jackson on the eye. Altogether this volume is as thoroughly valuable as all those familiar with *Progressive Medicine* have invariably appreciated. WINSLOW.

Clinical Treatises on the Pathology and Therapy Disorders of Metabolism and Nutrition. Part VI. Drink Restriction (Thirst Cures). Particularly in Obesity. By Dr. Carl von Noorden and Dr. Hugo Salamon. E. B. Treat & Co., New York. Cloth, 88 pp., 75 cents.

von Noorden's clinical treatise are always extremely interesting. In the present volume he considers the effects of restricting water in many diseases. He points out the value of this procedure in heart disease, especially as a prophylactic measure. The restriction is limited to 1250 to 1500 daily, or in hydrops, from 1000 to 800 cc.

The object is to limit the load on the heart, in limiting the amount of fluid in circulation. The work of the heart is also eased by preventing edema and consequent pressure on the smaller vessels with increased vascular tension. The value of restricting fluid in dilatation of the stomach is pointed out. Limiting the ingestion of water to $1\frac{1}{2}$ or $1\frac{1}{4}$ liters in contracted kidney, and in certain stages of acute nephritis, will be of much advantage. In uremic conditions, or in chronic parenchymatous nephritis with edema, the restriction of water is contraindicated.

Restriction of water in obesity is a well recognized form of treatment—even with the laity. The reasons for the benefit accruing from this method of treatment von Noorden shows are generally erroneous. Through his own, and the experiments of others, he demonstrates that only when the restriction is very severe—much more so than with most cases in practice—is there loss of tissue; that this loss of tissue is not fat but albuminous substance—with increased nitrogenous elimination in the urine; and that this condition is probably due to a toxemia following imperfect elimination through restriction of fluid and consequent depression of the excretories; that there is a fall in body-weight, in patients whose fluid is restricted, due to loss of water in the tissues; but, that when the restriction, water-cure, is successful, it is chiefly because restriction of water leads in many persons to anorexia. Loss of appetite is then the true cause of loss of flesh and when this effect is not induced the cure will be of little value.

Von Noorden concludes by showing how restriction of water may be most efficacious in some cases of ascites, due to cirrhosis of the liver; in chlorosis; and in intestinal and gastric hemorrhagic conditions.

The little monograph, like its predecessors, is original, virile and withal clinically of great practical worth.

WINSLOW.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR JUNE, 1905.

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Adams	6	0	1	0	0	0	1	0
Asotin	4	0	0	0	0	0	2	0
Chehalis	5	0	0	0	0	0	1	1
Chelan	4	0	4	0	0	0	0	0
Clarke	8	0	0	0	0	0	0	0
Columbia	3	2	0	0	0	0	0	0
Cowlitz	0	0	0	0	0	0	4	0
Franklin	0	0	0	0	0	0	2	0
Island	0	0	0	0	0	0	3	0
Jefferson	0	0	0	2	0	0	0	0
Kittitas	5	0	9	0	5	0	1	0
Lewis	8	0	0	0	2	0	0	0
Lincoln	0	0	0	0	0	0	2	0
Pierce	2	0	2	0	3	0	0	0
Skagit	0	0	0	0	1	0	0	0
Snohomish	0	0	1	0	0	0	1	0
Spokane	0	0	0	0	3	1	0	0
Walla Walla	0	0	0	0	1	0	0	0
Whitman	0	0	2	0	0	0	1	0
Yakima	0	0	0	0	4	0	1	0
Bellingham (city)	0	0	0	0	0	0	2	0
Seattle (city)	0	0	4	0	8	0	4	1
Spokane (city)	0	0	4	2	14	0	1	1
Tacoma (city)	0	0	17	0	8	0	3	0
Total	45	2	46	2	49	1	29	4
June, 1904	24	5	78	3	125	16	22	3
Total, 1905	63	3	451	10	429	39	106	26
Total same period 1904....	245	6	757	34	625	88	235	61

Five cases of smallpox were imported from Oregon to Clark county; one from Michigan to Aberdeen, Chehalis county; one from an eastern state to Wenatchee, Chelan county; one from Montana to Cle Elum, Kittitas county, and one from Alabama to Cle Elum, Kittitas county, and each case caused an outbreak in these different counties before the original case came under observation, as all were of a mild type.

Health officers are requested to be on the lookout for these mild cases that are arriving in the State from outside sources, and to take prompt and effective measures to prevent the spread of the disease.

ELMER E. HEG, Secretary.

NORTHWEST MEDICINE

September, 1905

ORIGINAL CONTRIBUTIONS.

INTRA-OCULAR MALIGNANT GROWTHS.*

By J. A. MACKINNON, M. D., AND J. W. BAILEY, M. D.

SEATTLE, WASH.

In presenting this paper for discussion with the report of two cases, one of angio-sarcoma and one of bi-lateral glioma, we wish to emphasize some recent views as to their histologic identity, and also the frequency of transition of the one variety into the other, the latter being due, probably, to the modifying influence of the new tissue invaded.

SARCOMA.

Of the tumors that originate in the choroid, in adult life, sarcoma is the form usually observed. It is always primary, single, and affects but one eye. It develops from the connective tissue of the choroidal vessels of any part of the fundus into a spheroidal-shaped body which projects into the vitreous. Some are broad, flat and, when small, may appear disc shaped and pigmented.

Causation. Nothing definite has been advanced as to the cause of these growths. Some cases associate the beginning of their eye symptoms with an injury, others bear some evidence of heredity. Silcock, of London, reported that he observed sarcoma of the eye ball to occur in three successive generations. However, neither heredity nor impaired health, nor trauma is generally admitted as a determining factor in its causation.

Structure. These growths are termed melano-sarcomata when pigmented and leuco-sarcomata when non-pigmented. In their early state they are encapsuled, or nearly so, by the vitreous lamina and uveal pigment. The eorio-capillaris can sometimes be traced on its surface. They are made up almost entirely of small, round or spindle cells, held together by a scanty amount of intercellular substance. The stroma is made up largely of numerous, thin-walled, friable capillaries which frequently rupture and stain the

*Read before the Washington State Medical Association, Seattle, Wash., July 12-14, 1904.

tumor. The choroidal tissue is entirely replaced by this new growth.

The Stage of Latency. The stage during which the growth remains eneapsuled by the choroid is non-symptomatic and may vary from a few months to several years. The patient may complain of a defect in his visual field, if the growth originates near the macula; but the further the growth occurs from the macula, the less manifest is this defect and the more unobserved does this first stage pass.

If the patient should come under observation during this stage, either on account of impaired vision or complaining of a scotoma, an examination might show a small, rounded, probably disc-shaped, pigmented body which might easily be mistaken for an exudative choroido-retinitis. If the local disturbance looks suspicious, the eye should be kept under observation for a few weeks before giving a prognosis, during which the growth may become more prominent, when the retinal vessels can be traced over its surface and sometimes a deeper network of vessels may be discerned which is characteristic of the growth.

The Second Stage. The second stage is ushered in and characterized by all the signs of an acute glaucomatous attack; and now, if not before, the patient seeks advice. On inspection, the bulb is injected, the pupil is moderately dilated, the anterior chamber appears shallow; the tension is increased, and the retinal details are soon veiled from view by the steamy, anesthetic cornea. Pain in the eye and head, generally in the vertex or over the brow, is sometimes so severe as to preclude rest at night.

The Third Stage. If the case is allowed to progress beyond this stage the growth increases rapidly in size, perforates the sclera, forming a fungoid mass, and invades the contiguous structures. The tension falls at this stage, the pain subsides, and the patient is more comfortable, although more hopeless.

The Fourth Stage. The last stage is characterized by metastases to the viscera.

GLIOMA.

Glioma or glio-sarcoma, of the retina, the most malignant tumor of the eye, is occasionally congenital, but usually appears within the first three years of childhood. It is rarely found after the tenth year. Twenty per cent. of the cases are bi-lateral.

It originates from the supporting fibers of the retina, and is thought by some to be of endothelial origin. Jessup, in St. Bartholomew's Hospital Reports, reviewing the pathology of glioma, con-

siders that it probably commences as an alveolar condition with marked connective tissue stroma, that at first rosettes (Wintersteins) or balls of cells with a clear lumen are found. But as the tumor grows and degeneration begins, there occur finger or worm-like processes. This is followed, at times, even before the growth has reached beyond the eye, by loss of definite structure; and the growth assumes the form of a round-celled sarcoma. When the growth also invades the choroid or iris, the structure consists simply of cells without any tendency to definite arrangement.

In his opinion, the obscurity in which the understanding of the origin of this affection is surrounded cannot be cleared until cases can be seen and studied at an earlier period than that in which most cases have commonly been reported. In his own case the youngest child's age was thirteen months.

The changes in most cases take place so rapidly that even the alveolar condition is soon lost and degeneration begins. The rosettes upon which Wintersteins lays such stress are found chiefly in the early, and only in the intra-ocular stage. In his studies Jessup could not define the origin of glioma as taking place in the nuclear layers, because there was a marked dissimilarity between the cells of the new growth and those of the retinal layer. Following Cohnheim, he thinks the origin is from some developmental embryonic tissue. This could account for both eyes being affected so frequently, and in such cases for the starting of the growth in both eyes separately. His specimens seem to indicate it to be a sarcoma, and it is to be classified as endothelioma, as the retina contains sufficient endothelial tissue to give rise to such a tumor.

Diagnosis of Sarcoma. During the first stage, when the tumor originates in the macular region, the subjective symptoms are manifest early, but a diagnosis is difficult; but when in the ciliary or equatorial region, they occur late, and the diagnosis is relatively clear.

The onset of the second stage is usually indicated by an attack of glaucoma which, when associated with a previous history of failing vision and with signs of retinal detachment, is almost positive evidence of sarcoma. If the media are sufficiently clear at this stage, the ophthalmoscope will reveal a single, well defined, nodular, dark, gray tumor, projecting into the vitreous with retinal vessels coursing over its surface. If retinal detachment has taken place, the tumor can sometimes be made out as a dark body beneath the floating retina.

Detachment of the retina is most likely to be confused with the earlier stages of sarcoma, but in the absence of any exciting cause such as high myopia, wound of the sclera, severe blow on the eye, we should be suspicious and examine the fundus under strong illumination with the pupil dilated, and if there is not much sub-retinal fluid to hide details, the uneven or knob-like surface of the tumor may be discerned and a definite diagnosis made. If, however, there is sufficient sub-retinal fluid to completely hide all sub-jacent details, the case may present the wavelike motion that is characteristic of simple detachment, the retina being thrown into folds, into the creases of which the vessels dip and apparently lose their continuity. The history of the case here would aid in diagnosis. In detachment the loss of vision is usually sudden. In sarcoma it comes on first as a defect in the field of vision and progresses slowly and surely to complete loss of function.

In detachment, tension is sub-normal; in sarcoma, hyper-normal. Some sarcoma cases have been diagnosed solely on the fact that there exists, with retinal detachment, a condition of hyper-tension. Hill Griffith states that "when increase of tension occurs in a case of retinal detachments, even if the eye be not in a state of acute glaucoma, and the globe be still free from injection, the case is no longer one merely of suspicious detachment, but is almost certainly one of choroidal sarcoma." In sarcoma we may elicit a history of pain that, with beginning tension, is continuous, with nightly exacerbations.

Carcinoma of the choroid is so rare that it scarcely comes in as a factor in diagnosis. It is always secondary to carcinoma of the mamma.

Diagnosis of Glioma. In the diagnosis of glioma, neither the amaurotic cat's eye nor hyper-tension are pathognomonic, for the same signs are usually present in pseudo-gliomata which may be defined as a group of heterogeneous eye affections, characterized by yellowish exudation behind the lens which run their course under the typical, clinical picture of glioma. The following are the chief points of distinction between the conditions.

In pseudo-glioma there is a history of acute illness, with probable cerebral symptoms, whereas in glioma there is no such history. The iris shows numerous posterior synechiae and its periphery is retracted. "The pupil is narrow and irregular from adhesions; the iris is muddy and opaque, and forms a truncated cone with the narrow end at the pupil, and presenting the

appearance of having been moulded over the lens. Immediately behind the clear lens is seen a layer of exudation which gives a dirty-yellowish reflex, never quite like the pure white or pinkish white of glioma."

"The history of an illness, the iritic adhesions, the retraction of the periphery of the iris, a diminished tension, and the above mentioned character of the reflex should prevent such a condition being mistaken for glioma."

Prognosis. Without any form of treatment, metastasis, which is usually the direct cause of death, may occur at any stage of the intra-ocular growth, and has been reported as late as seven years after enucleation; so that the stage at which the eye is enucleated has little influence in determining the occurrence of metastasis. The histologic structure of the growth no doubt plays an important role in its proneness to metastasis. The round-celled, highly vascular and rapidly growing tumors are more malignant and more prone to form secondary growths than the spindle-celled, less vascular and more slowly growing variety. The prognosis in youth is more favorable than that in later life.

Von Graefe found only six per cent. alive after four years. This is a lower percentage of recoveries than most observers give. Lawford and Collins give fifty per cent. Griffith gives fifty per cent. permanent cures. He concurs in Fuchs' opinion that the stage at which the eye is enucleated has little or nothing to do with metastasis. He cites an example of one case of enucleation, in the third stage, where the growth had existed for thirteen years, in which there was no recurrence of the growth. He had two cases in which the operation was performed at the very early period, where V=6/36 and J 16. Both died.

Case I. Mr. W., age 40, always enjoyed good health, of excellent physique, of good habits; his eyes have always been normal as to visual acuity, but the latter part of November, 1903, he noticed some slight "weakness" and dimness of vision of the left eye, but attributed this condition to a cold. These symptoms gradually increased with an entire absence of pain. After a time he noticed headache over the vertex in the morning. About a month after these symptoms became manifest, his sight began to fail rapidly, and he consulted a specialist while away from the city, who pronounced it a retinal detachment. A few days after returning to the city the eye became inflamed and painful; this he thought due to a slight injury to the eye, but in a few days this subsided. The patient consulted me about a month later, complaining of pain in the eye which had recurred. On inspection, the bulb was somewhat injected, pupils of equal size, responding to light reflex and ac-

commodation, though less promptly in the affected eye, tension perceptibly increased. On ophthalmoscopic examination and without mydriasis, I found the vitreous hazy and the fundus details ill defined, but made out what I considered to be a small detachment in the upper and outer field. The patient did not return for about three weeks, when all his former symptoms were intensified, the pain over the vertex being so severe during the previous two nights that he had been unable to rest.

On inspection the eye presented all the signs of acute inflammatory glaucoma. The cornea was steamy, the bulb was very much injected, and the tension was about T+2; the anterior chamber was shallow; no fundus details of any kind could be made out through the steamy cornea, and opaque media. Vision was nil. Recalling the fact of having made out what I thought to be a retinal detachment in the former examination, I now concluded the case was one of sarcoma. One week later the patient decided to have an enucleation done. The macroscopic section of the eye you have before you will demonstrate the presence of the growth. The patient has been under observation for eighteen months since the eye was enucleated and has continued in good health. There is no sign of local relapse. Right eye normal.

Case II. G. A., age 4; father mechanic, age 27; paternal grandfather died of cancer of the stomach at 43; paternal grandmother living; maternal grandfather died of consumption at 28; maternal grandmother living; one brother and sister living, healthy, ages eight and six respectively; brother deformed, absence of finger of one hand and toes on feet. When a week or two old, patient's right eye appeared slightly inflamed; when about a month old, the mother noticed, by lamplight, through enlarged pupil, a yellowish reflex. Not until three years old did she notice a similar reflex from the left eye. The pupils slowly became whitish; then the right eye became red and swollen; this soon subsided, but about June, 1903, the eye began to enlarge and protrude. The symptoms were progressive, accompanied by pain until the eye was enucleated. The left eye about September, 1903, showed whitish reflex and began to fail, and the child was blind in a few months. The eye was enucleated July 4, 1904. The child is frail, nervous, but bright mentally. She died a few months after enucleation from metastasis to the brain.

PATHOLOGIC REPORT.

Case I. Left eye of an adult. The eye ball was preserved in Mueller's fluid. It was shrunken, due to the escape of some of the contents. After hardening, a section was made through the vertical plane. There was a large blood clot in the vitreous chamber and some anterior retinal detachment, due to sub-retinal hemorrhage. At the posterior part of the eye, lying mostly above the horizontal plane, is a growth. This lies between the sclera and the pigmented portion of the choroid. It consists of two portions or lobes, both encapsulated.

The cross section of the upper of the two portions is elliptical. Its longitudinal axis is .9 cm., the transverse .5 cm. Its long axis lies paralld to the sclera. It is divided by transverse trabeculae into three portions. The substance of the tumor in gross appearance resembles liver.

The lower portion is similar in outline to the cross section of a hazel nut, the apex lying just above and back of the center of the globe. Its greatest longitudinal diameter is .9 cm., the transverse .75 cm. The gross appearance is the same as that of the other portion.

Pieces of the tumor were imbedded in paraffin and stained in alum-carminc and eosin.

Microscopically, the tumor substance consists of a stroma of large and small round and spindle cells, enclosing many large blood spaces or lacunae. The blood spaces are lined with cells that are more or less hyaline. The neuclei took the stain with difficulty. Large and small round cells predominate throughout the tumor. Numerous extravasations of red blood cells into the stroma are present in the sections, and there is indication of old hemorrhages. There are no melanotic cells present.

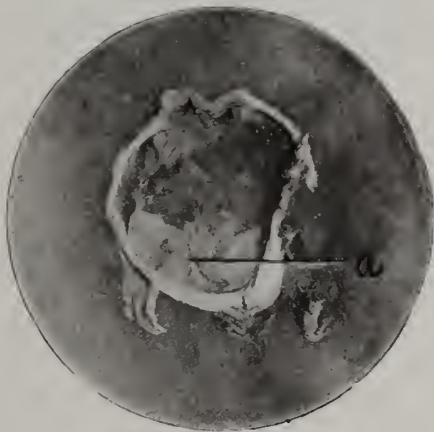


Fig. 1. Section of orbit showing round-celled sarcoma (natural size); a. The tumor.

Anatomic diagnosis: Angio-sarcoma of the choroid, the sarcomatous elements being of the mixed round-celled type.

Angio-sarcoma is a rather rare form of choroidal tumor, and unpigmented or leuco-sarcoma, as a rule, takes its origin from the anterior portions of the choroid. This growth, however, seems to have originated in the vascular area back of the pigmented portion of the choroid; tumors arising in this tissue can occur at any point in the choroid.

The fact that it is multiple is rather unique in the case of sarcomata of the choroid.

Case II: Child; left eye. This eye in the recent specimen was

of about the normal size. Projecting from the back and clasping the eye ball was a growth which extended well around toward the equator.

The growth consisted of two large encapsulated globes, with several small nodules adherent. The optic nerve was atrophied, but was visible between the lobes. The cornea was opaque and was smaller than normal. The tumor was soft on palpation and pressure on the globe was transmitted to the larger lobe, though no communication was found between the interior of the eye ball and this portion of the growth.

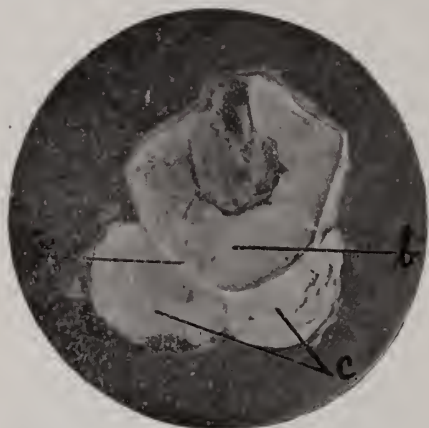


Fig. 2, Section of orbit showing glioma (natural size); a. Sclera; b. Intra-globular portion; c. Extra-globular portion.

The specimen was hardened in formalin solution and a longitudinal section was made of the eye-ball and growth. The latter was then found to consist not only of a part without the eye-ball, but also of a part within. The intra-ocular portion occupied the whole interior of the eye, except the space taken up by the choroid and a small area directly under the cornea. The lens and iris were absent. The choroid had been pushed forward equally in all directions from its attachment to the sclera, and lay as a thickened black band, forming the arc of a circle. Its greatest convexity lay just behind the center of the eye-ball. The tumor substance lay both in front of and behind it. The large lobes of the extra-ocular portion of the growth were adherent to the sclera and there had been a hemorrhage under the capsules. The sclera under the lobes was thinned.

Fresh preparations showed the tumor to consist of small round cells with no processes and very little connective tissue stroma. Portions of the growth were imbedded in paraffin and stained with alum-carmin and eosin. All portions took the stain equally well. Owing to the formalin, the cells had not kept their original shape, but the tumor was found to be made up of fine connective tissue stroma in which lay the tumor cells. They are of uniform size and

there is an intimate relation between them and the connective tissue element. Cells contiguous to the sclera show a cylindrical arrangement. Similar rows of cells were found in the sclera. There were no evidences of melanotic pigment in the cells. The choroid was thickened, the retina destroyed. We have here to do, as the clinical history shows, with a congenital growth.

Tumors presenting the above characteristics arise from the retina and are called by the generic term of glioma. Later writers are, however, modifying their views and are discarding the term glioma unless true glioma cells can be demonstrated. It may be possible that some glioma cells are present in tumors similar to this one, but the cells here are plainly sarcoma cells, and the growth a congenital, small, round-celled sarcoma, presenting a cylindrical arrangement in the interior of the eye near the sclera.

It may be of interest to quote the views of some recent writers on the subject of the identity of glioma and sarcoma. Greeffe has shown sarcoma of the retina to be more frequent than glioma. Glioma (Berry writes) so closely resembles, in its structure, round-celled sarcoma that they are looked upon as identical by some.

An example of sarcoma of the choroid in a child of two years has been reported to Meighan, of Glasgow. Battle, of Raleigh, recently reported a case of lympho-sarcoma in a child of twenty-one months. It was made up, biologically, of small, round cells, without pigment clusters; the elements resembled lymph corpuscles. Delafield termed glioma, "small-celled retinal sarcoma."

Brunner, in the record of July, 1903, reports the case of a child of two years who presented the typical appearance of the so-called "amaurotic cat's eye," and glioma was diagnosed. Microscopic examination proved it to be an angio-sarcoma, originating from the central artery of the retina. Conversely, sarcoma of the choroid may take on gliomatous characteristics as in gliosarcoma. Von Graefe observed two cases of glioma in adults.

TUBERCULOSIS FROM AN ECONOMIC ASPECT*

By C. B. BOYLE, M. D.

BOZEMAN, MONT.

I feel that an apology is due by me to the members of this society for presenting to them a paper on the subject of tuberculosis. However, I know you will expect nothing new or original. My paper will be confined mostly to an attempt at presenting some phases of the modern aspect of the subject, omitting as far as possible,

*Read before the Gallatin County Medical Society, Bozeman, Mont., June 5, 1905.

tedious details of pathology and symptomatology, laying more stress upon the economic and municipal relations of tuberculosis now engaging the thought of so many workers.

My attention was first attracted to the question of the economic relations of tuberculosis to the state, in the early nineties, by the work of Dr. S. A. Knopf, at that time residing temporarily in Paris, but now of New York, one of the great leaders in the crusade of education at present in progress. Dr. Knopf devoted several years to the study of tuberculosis under the most celebrated clinical teachers of Europe and since taking up practice in New York, has been foremost in all public movements looking towards the prevention and cure of this disease, and the betterment of the living conditions among the poor.

The subject of the decrease and possible eradication of tuberculosis should appeal, from different points of view, to most every intelligent and humane citizen. No disease is so prevalent, so destructive, or so merciless, but fortunately few so preventable, arrestable or practically curable. Dettweiler says he can cure tuberculosis in any climate. Some authorities estimate that from 75 to 90 per cent. of all human beings are at some period of their lives infected with tubercle. It is estimated that one-fifth of all children dying under five years of age die from some form of tuberculosis, and that one-seventh of the world's mortality is due to it. The relative frequency and gravity of the disease up to five years of age is probably not due to congenital influences or hereditary tendencies, but to the greater chances of infection and relative lack of resisting force in the young.

The actual money loss to the world from tuberculosis, and its effects in man is, of course, impossible to determine. We have to confine our estimates to limited communities, or else estimate the value of animals lost, which seems to appeal more directly and forcibly to the powers in authority.

No complete records have been kept for any great length of time of the number of deaths due to tuberculosis in any given community. The state of Massachusetts has perhaps done more of an accurate and detailed nature than any of our states. Great Britain alone suffers an economic loss of from 15 to 20 million dollars a year from tuberculosis among animals. There were perhaps among humans, in 1904, 150,000 deaths in the entire United States, due to tuberculosis. A fair estimate would probably place 25,000 of these in the wage earning class, that is, between the ages of 15 and 60. If we consider that each wage earner lost means only \$50 per month, we lose in the year \$15,000,000. The loss thus computed is such an inconsiderable proportion of the actual loss that it is merely an atom compared to the great monetary mass.

In the estimates of the indirect loss we must figure, not alone

the loss of the earnings under normal conditions, but the actual output necessary in maintaining a tubercular patient, and oftentimes many dependents. This phase of the subject appeals to the student of sociology and is the business of all mankind. We may attempt to measure men in money, but who is there among us who has the temerity to dare place a value upon the silent tears of the widowed, the hungry cry of the motherless or the anguish and despair of a parent, brother, sister or sweetheart, caused by the loss of a dear one lain low by this merciless captain of death.

The question of the increase or decrease of tuberculosis can be answered relatively only. Where accurate records have been kept, a steady decline has been noted, owing perhaps to the fact that more careful diagnoses are now made than formerly and that more specific and definite causes of death are given. In England, the decrease has been very marked. From about 2,500 per million in 1850-1860, to about 1,500 in 1902. In Massachusetts the decrease has been from 3,100 per million in 1851, to 1,700 in 1902.

The most notable increase in tuberculosis is found in the cities. This is due in a great measure to the unfortunate but apparently irresistible tendency of the masses to migrate toward the great centers of population, and oftentimes the substitution of sedentary, indoor occupations in crowded unsanitary houses or tenements, for the invigorating and honest toil of the sturdy agriculturist. We all know that the mortality among agricultural laborers is low and that in indoor workers the mortality is high. A notable exception is made in the case of miners, especially coal-miners. My experience is in accord with the observations of some others who have been engaged in mine practice. That is, contrary to the general accepted opinion of the public and also that of many physicians, the mortality among miners from tuberculosis is relatively low. This is explained partially, at least, by the fact that the sputum cannot dry in a mine. The mine gases may also have a destructive effect upon the bacilli. The so-called miners' consumption is due to mechanical irritation of the smaller bronchial tubes by the inhalation of air laden with coal dust, producing a chronic bronchitis, asthma, consolidations, and frequently pneumonia. The presence of the tubercle bacilli in the sputum is a rare exception.

A marked increase in tuberculosis is noted in the negro race in America and also among the Indian tribes. In prisons and cloistered institutions great havoc is wrought, the mortality approaching 75 per cent. This is not due to primary infections but to rapid extension of unsuspected or latent lesions, the means of germ destruction and prevention of transmission of the disease in such institutions being up to the average. It appears then that the question of increase or decrease is reduced largely to ques-

tions of modes of life and environment. The tubercle bacillus seems to thrive and find an enlarged operative field on account of the evils of modern civilization. Its ravages are unknown to animals in the wild state. The evolutionary steps in its invasion are certainly most suggestive and are in accordance with our present opinions. Perhaps unknown in the primitive man, we know how rare it is among the nomadic tribes; we are also well aware of its rapid increase in our Indians under modern conditions, in prisons, convents, monasteries, and all closed institutions, and also its frequent and unexpected outbreak in people flocking from country districts to crowded cities. A reiteration of these statements in detail may appear monotonous, but they all seem essential to our conclusions. They prove to some extent, at least, that man has had to pay a dear penalty for raising his nose from the ground and assuming the erect posture distinctive of his order.

It is well known that tuberculosis is a communicable disease, the essential cause of which is believed by physicians to be the bacillus tuberculosis, discovered in 1882 by Koch. But in all probability the resisting power of the living tissue is an equally important factor in the production of pulmonary tuberculosis, the form used as the basis of this paper. Years ago, that is, before Koch's announcement of the true cause of tubercle, much stress was laid on the theory of the hereditary transmission of tuberculosis. At present, few physicians accept this idea, although the most casual observer of family characteristics must be convinced that we may, and undoubtedly do, inherit cellular elements, similar morphologically and physiologically to their ancestral forms in many regards, perhaps vigorous, strenuous cells, capable of strong defense against, and active resistance to our numerous enemies, or else, weak, anemic cells, incapable of normal metabolic activity, and falling a prey to disease in various forms; a striking example of the theory of the survival of the fittest.

Laying aside, at least for the present, the influences of heredity, we conclude that the bacilli enter the system, perhaps through ingestion, inoculation or inhalation, the matter of transmission by intra-uterine or placental infection being largely theoretical and, if admitted at all, certainly having little practical value. Primary infection due to absorption of bacilli introduced through the intestinal tract is, in my opinion, an extremely rare occurrence. The milk from animals reacting to tuberculin has been used freely for infant feeding and the meat of animals suffering from tuberculosis is probably much used. In some countries from 40 to 50 per cent. of the cows have tuberculosis. Fortunately the percentage in this country is much smaller, being less than ten per cent. I am inclined to favor the theory that the great tolerance shown by the intestinal tract may be due to the bactericidal properties of some of

the secretions that are found in the alimentary canal or else to the presence in the canal of other germs possessing an inhibitory or destructive effect upon the tubercle bacilli.

Infection by inoculation has been noted as an occasional occurrence but as a common method of producing tubercle it can be eliminated. We come next to the mode of most frequent infection, namely, by the inhalation of germ-laden air. Given an aggregation of poorly nourished cells, due to inheritance or other causes, with a diminished resisting force and Koch's bacilli and we are pretty sure to have a case of tuberculosis. Tubercle, as at present defined, is a product of the tubercle bacillus but the tubercle bacilli may and do attack us and are doubtless often repulsed without the formation of tubercles. This may be due to the mysterious property of the organism termed immunity. Air carrying tubercle bacilli may come from innumerable sources, such as breath of patient, rooms occupied by patients, public halls, conveyances, streets, etc.

Few, if any, bacilli are found in the expired breath of a tubercular patient during calm respiration, but many are cast off in the fine spray during coughing. However, I will not dwell on the distribution of the germ through the sputum of patients, the facts are too patent to all.

The classic symptoms of pulmonary tuberculosis are well known and easily recognized, but unfortunately often too late. Unless we can make a diagnosis in a given case at the very inception of the disease, or at best before any marked destructive pathologic change in the lung tissue has occurred, our efforts towards relief or cure will often prove futile. We must be ever watchful for the very first symptom, yes, solve, if possible, the puzzling cases in the so-called pre-tubercular stage, cases marked by an infinite variety of non-pathognomonic symptoms or well developed physical signs, indicative of advanced lesions, before the bacilli are present in the sputum and long before the tubercle breaks down and the bacilli are re-inforced by cocci which play a most important part in the progress of the disease, a part hitherto little understood or perhaps not appreciated. One or two authors have gone so far recently as to declare that the tubercle bacilli alone cannot produce fatal results, death from tuberculosis being the result of a mixed infection. I am strongly inclined to accept these statements, at least I believe they appear logical, as we are all familiar with the virulent and destructive effects of other mixed infections. Patients frequently come to us with little idea of the existence of serious trouble. Perhaps slight lassitude, inability to accomplish a normal amount of mental or physical work, slight emaciation, indigestion, various vaso-motor disturbances, and sometimes pleuritic pains. Perhaps they have had influenza or a "bad cold," hoarseness or bronchitis. Cough, if present, is not annoying, and sputa absent or not characteristic and frequently no bacilli are shown. A little

flushing in the afternoon but no sweats or slightest suspicion of patient's part of tuberculosis. Physical signs are negative, or we may detect an indefinite departure from our conception of the normal inspiratory or expiratory rhythm, a little dullness usually at the right apex and, may be, a few very fine rales.

Cases in more advanced stages are hardly mistakable, and so for the purposes of this paper they will not be discussed. We all appreciate the importance and difficulty of making an early diagnosis. We cannot make a positive assertion without finding the bacilli, and frequent examinations are often necessary. Having detected the tubercle bacilli our first duty is to inform our patient and congratulate him on the fact that he has a curable disease. He will be doubly surprised. First that he has consumption, and second that the disease is really curable. I believe we have, theoretically at least, as much right to apply the term "curable" to tuberculosis as we have to pneumonia, typhoid fever, small-pox or to many other diseases that we treat expectantly and hopefully, but not specifically. The treatment of tuberculosis is just as specific and the percentage of arrested or practically cured cases, if treated from their very inception, according to modern methods, is almost, if not quite, as high as that of the diseases mentioned.

Having made our diagnosis our real work as physicians and humanitarians begins. Tuberculosis follows either the destructive and dangerous channel leading to caseation and its sequelae, or else the conservative and healing path resulting in a cure or a life of usefulness and comparative comfort. In the average patient the tendency is towards recovery, not death, the fatal cases in the vast majority of instances being largely due to mixed infections, or to the lack of early recognition or rational treatment.

Most diseases that we call curable are treated from their inception but tuberculosis, on account of its insidiousness, secures too much of a start, the physician has too great a handicap. Can you imagine what the percentage of deaths would be in typhoid fever, diphtheria or pneumonia, if we were unable to recognize them or they went without treatment or rational control until the very last stages?

Under the head of treatment it is usual to consider prophylactic measures first. As this seems to be the age of preventive medicine we should all take part in the present struggle against tuberculosis. We must inform ourselves, instruct the ignorant and keep the subject constantly before the public. When the mighty host of American medical men enlist in the growing movement against this universal scourge and thus bring the people to an active realization of the true status of the disease the results for the betterment of mankind will be such as to stagger the most sanguine worker in this field.

The actual treatment is comparatively simple and can be carried out at home or preferably in a well regulated sanatorium. Sanatoria for the treatment of tuberculosis should be established and

maintained in each state, or by the joint action of two or more states, in a favored locality. The economic return to the states for such an investment can easily be demonstrated. The medicine is the freest thing on earth, it is not patented nor controlled by a trust, but surrounds the earth as a halo of hope and is within the grasp of us all. Pure air, plenty of pure air, is the potent remedy. But conditions favoring the use of this remedy must also be taken into consideration. Some localities and altitudes are necessarily more favorable than others. Select a place free from high winds and dust storms. The best climate is one that furnishes pure dry air without excessive heat, or variations in temperature, and a great number of days of sunshine during the year. Such conditions are found along the eastern slope of the Rocky Mountains, at various places from Montana to Mexico.

The sanatorium treatment has been very successful. This has been due partly to the personality of the great men who have been at the head of these institutions. It is generally conceded that in high altitudes there is an increase of iron and hemoglobin in the liver and blood forming organs producing a new supply. The altitude of one of the most noted sanatoria in Europe is less than 1,900 feet, that of Dr. Loomis' in New York about 2,000 feet.

In a comparatively new country like Montana, unknown to the outside world and valued mostly for the products obtained from the earth, little attention has been paid to its advantages for the treatment of our suffering brethren. Other less favored states are becoming famous. Bozeman, a town of 6,000 inhabitants in the Gallatin Valley, is an ideal place for the establishment of a state sanatorium or a large private institution. It is situated in a broad valley or basin, at an altitude of 4,800 feet. The general climatic characteristics of Bozeman are a rarefied, aseptic atmosphere, dryness, abundant sunshine, lack of high winds and little dust, equable temperature and low barometric pressure. It is surrounded by various outlying ranges of the Rocky Mountains which are heavily timbered with pine. The electricity in the air undoubtedly adds to its tonic effect. The water supply of the town is obtained from a mountain stream and is free from alkali or organic matter.

The so-called outdoor treatment, in order to increase metabolism, must be aided by other measures, mostly dietetic, and all unnecessary medication should be avoided, as the digestive system must be kept intact; it is our sheet anchor. Under such a line of treatment as I have indicated the percentage of arrested cases or apparent recoveries of incipient cases has ranged approximately from 50 to 75 per cent, the latter figure applying to Massachusetts, in the year 1904, under natural conditions in my opinion not nearly so favorable as could be had in Bozeman, Montana. In Massachusetts the cost per week to each male patient is \$4 which is a trifle less than half of the actual cost. The same general ideas are applicable to the treatment of patients at their homes, but the systematic supervision is lacking, the constant presence of

a strong directing head is missed and the psychologic factor, so-called, is lost.

The parable of the sower has been used by a great international lecturer and writer to illustrate individual predisposition. It occurs to me that at times the battle of the tubercle bacilli against the cells of the human organism is comparable to the conflict of a vast invading force against a seemingly impregnable fortress.

On the one hand we have, when anatomically and physiologically perfect, a complete but complex aggregation of the highest type of *animal cells*, forming the human body, developed by selective evolutionary processes, and dominated by that distinctive feature of zoologic perfection, the human brain. This body of animal cells constitutes the fortress, built by the Great Architect, and is the culmination, we believe, of the animal kingdom and is designated as man. The fortress is well placed. Its walls and casements are constructed of the refinements of Nature's laboratories, well adapted to withstand the invasion of the deadliest enemy. It is equipped with the most modern and powerful machinery, fortified with long range guns, aided by search lights, and protected by mines and wire entanglements, charged with killing currents, manned by trusty pickets and garrisoned by numberless protoplasmic masses called cells, well worthy of any foe. The commissary general of this fortress has supplied it with all necessary nutritive elements, good water and plenty of fuel. But best of all, remember it is in direct communication with its non-capturable and unfailing source of supplies.

On the other hand, we have as our invading army an innumerable number of little rod-like *vegetable cells*, distinguishable only by the searchlight of the fortress after much difficulty, an enemy apparently so insignificant and outclassed as to be unworthy of attention. But the insidious nature of the foe, combined with numbers, intensity of his poisonous bullets and tenacity of life, challenge our admiration and demand that we be on guard and ready to give battle. The slightest indiscretion in the fortress, a weak spot in its walls, a sleeping sentinel, and perhaps the bugle's alarm to arms will be too late. The enemy is upon us and even our base of supplies may prove useless.

I believe that the gradual decrease in tuberculosis now in progress, brought about after so much labor upon the part of numerous investigators and specialists, if aided in the future by generous financial donations of philanthropists and supported heartily by the public press, individuals, municipalities, states and nations, will, in the course of the lives of some of us here present, probably make tuberculosis as a cause of death a rather rare entry in our mortality records.

CLINICAL REPORTS.

A CASE OF COMPLETE PYLORIC STENOSIS AND GASTRIC DILATATION.

By F. L. HORSFALL, B. A., M. D., C. M.

SEATTLE, WASH.

J. H. C., Aet. 61; occupation, logger. This patient came to me on May 14, 1905. Complaints, loss of weight, pain in stomach, vomiting, constipated. Personal history: Had measles when a child, typhoid fever twice, no venereal history. Had always used alcohol in moderation, also tobacco. Family history: negative. Present illness: About three or four months ago patient began to notice that he was becoming constipated. This was followed by pain in the right side, near the ninth costal articulation. He was greatly troubled with eructations of gas and a little later began to vomit. He said that the attack of vomiting followed his meals and of late they were much worse at night. At the time of consultation he could eat but twice a day and for several days had vomited about three or four hours after the second meal. Meat was not tolerated at all. On examination the abdomen revealed nothing in the way of a mass or tender points. The stomach was greatly dilated, the fundus reaching to the fourth rib in the anterior axillary line. Blood: Erythrocytes 5,000,000, leucocytes 13,000, microscopically negative. Pulmonary system: negative. Cardiac system: Heart normal, high degree of arterio-sclerosis, second aortic sound accentuated. Genito-urinary system: normal. Stools: normal in color, but very slight in amount. The vomitus was examined. Free hydrochloric acid was present, no lactic acid, no sarcinae, total acidity 56. Diagnosis: A positive one of a high degree of gastric dilation was made and a tentative one of pyloric obstruction, cause and degree not determined.

Treatment: Patient was advised to go to the hospital where he could be watched more carefully. As he had no money this could not be done. He was given magnesium sulphate with no result. This was followed by elaterium, gr. 1-8, which produced a free evacuation. The diet was regulated and panzyme, gr. v, t. i. d., p. c., was ordered. For a period of one week there was some slight improvement. Bowels moved more or less and pain and vomiting decreased. This was followed by an exacerbation of the symptoms. Arrangements were made through friends and he was sent to the Seattle General Hospital on May 20. Dr. Raymond saw him in consultation and agreed with the previous diagnosis.

A diet of peptonized milk, soups, broth, gruel, cocoa, eggnog and bread was given. Gastric lavage, of normal saline, quarts, ii, in a. m., a. c., was ordered and colonic lavage of gradually increasing amount.

On the 21st, the gastric lavage was returned brownish in color and the bowel movement was small and constipated.

On the 22nd, the same gastric condition was present but the odor was foul. On this day there were two bowel movements, the second being a large one. Between the hours of 7:30 p. m. on the 22nd and 7 a. m. on the 23rd, there were four emeses of 49 oz. of dark brown, coffee ground vomitus. On the morning of the 23rd, following the gastric lavage, an attempt to demonstrate the amount of gastric dilation failed. An examination of this emesis showed hydrochloric acid, no lactic acid, no blood.

Operation was advised, the risk entailed being fully explained. Consent to operation was given on the 26th. The blood was again examined and the findings were again negative, coagulation time 3 minutes.

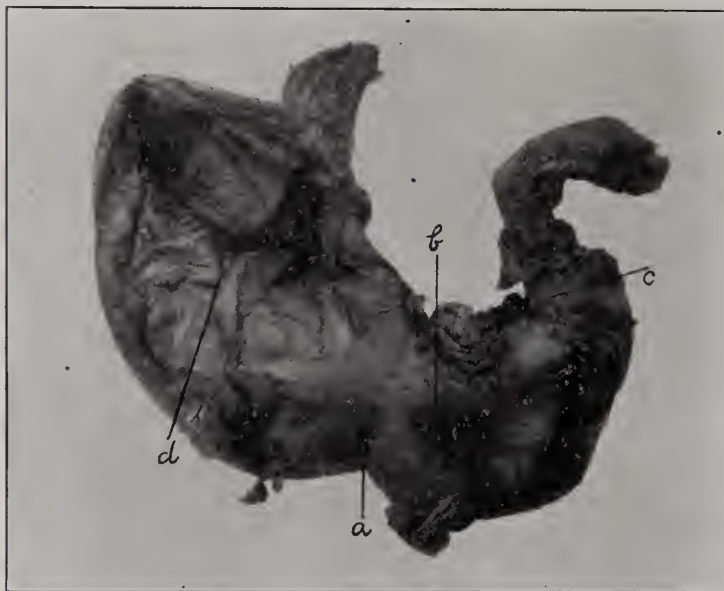


Fig. 1. Hour glass contraction of stomach; a. Site of contraction; b. Hypertrophied muscular fibres; c. Line of suture in pylorectomy; d. Thin dilated wall of fundus.

On the 28th, after the usual preparation, the abdomen was opened in the middle line by an incision extending three inches from the ensiform cartilage. On exploring the cavity a mass of very hard tissue was found which involved the entire pylorus. As far as could be made out none of the glands in the neighborhood were enlarged. The gallbladder was normal and no calculi present. The cicatricial contraction was so great and the mass so hard and large that, despite the evidence from the repeated examination of the stomach contents, we were compelled from the macroscopic appearance to consider it as malignant. We therefore did a pylorectomy.

The limits of the incisions were wide so as to be sure of healthy tissue. The mucous and muscular coats were united with catgut and the peritoneum with silk. The abdomen was drained. During the operation the patient was stimulated three times. The pulse was 160 at the close of the operation.

I saw the patient at 5:30 p. m., three hours after the operation. He was conscious, free from pain, said he felt weak. I saw him again at midnight; he was feeling well, pulse 130, respiration 20. At 6:45 a. m. he suddenly grew worse, pulse weak and thready, respiration labored. He died at 7:15 a. m. on the 29th.

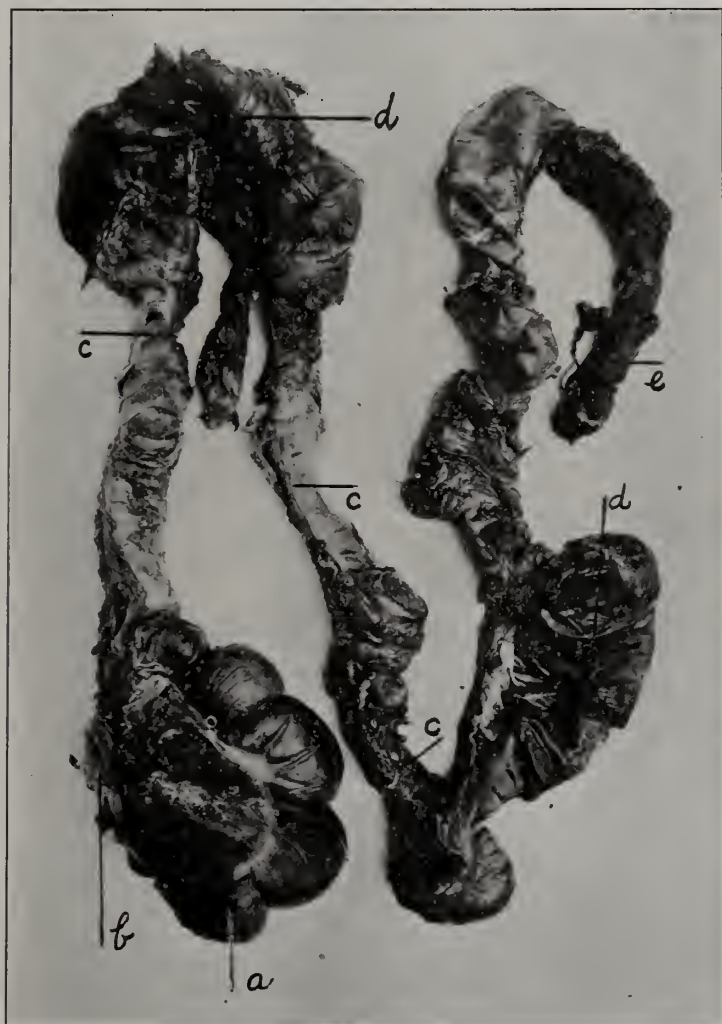


Fig. 2. Stenosis and hypertrophy of colon; a. Cecum; b. Appendix; c. Site of stenosis; d. Hypertrophied areas; e. Rectum.

Postmortem: An hour glass stomach was found, a photograph of which is given. The muscle was enormously hypertrophied at and about the constricted portion. The upper portion of the hour glass held a little over half a gallon. The point of most interest was the condition of the large intestine. For four-fifths of its length there was the most marked stenosis, at various points. The remaining one-fifth showed compensatory hypertrophy. The photograph shows the condition beautifully. There were no adhesions. The suture line was firm and there had been no seepage. The excised pylorus and mass showed a complete stenosis and, what was of most interest, an old healed ulcer, near the pyloric orifice. In the process of healing the contraction had involved the pylorus, thus producing the stenosis. There was no evidence of malignancy. Could we have been certain of this, a gastrojejunostomy or a gastroduodenostomy would have been the operation of choice.

It would appear that attacks of typhoid fever are frequently followed by ulcers of the stomach. In a recent article by the Mayos this fact has been dwelt upon and it is claimed that the condition is much more frequent than clinical experience would warrant. Whether or not these post-typhoid ulcers are accompanied by a greater degree of contraction than others, further pathologic research will reveal. I can offer no satisfactory explanation for the condition of the large intestine. That it was of long standing there can be but little doubt.

As this was a charity case my thanks are due to Drs. A. Raymond and I. Janson, who kindly assisted, and Dr. J. W. Thomas, who gave the anesthetic.

LACERATION OF THE ABDOMINAL WALL, WITH EVENTRATION AND LACERATION OF SMALL INTESTINE—RECOVERY.

By R. S. GARNETT, A. B., M. D.

TACOMA, WASH.

On the morning of May 17 I was summoned by telephone to attend Mr. D., aged 42 years, engineer, married, who sustained severe injuries from flying fragments of an emery wheel. The patient was conveyed in an ambulance to St. Joseph's Hospital.

An examination showed a contused and lacerated wound of the anterior abdominal wall, in the right umbilical region, with an eventration of about six feet of small intestine. A portion of the abdominal wall, about twice the size of a silver dollar, was carried away. The intestine remained exposed, and in contact with clothing for nearly one and a half hours. There was also a compound, comminuted fracture of the left clavicle, with, however, no injury of important underlying structures. The middle third of clavicle was carried away, leaving inner articulation with sternum and outer articulation with acromion process of scapula. The right hand was also injured—a compound, comminuted fracture of upper end of first phalanx of little finger and severed tendons of extensor communis digitorum and extensor minimi digiti to phalanges of little finger.

I called Dr. J. J. McKone in consultation. The patient was removed at once to operating room, and a few minutes prior to operation was given morphin sulphate, gr. $\frac{1}{4}$, and strychnin sulphate, gr. 1-30, hypodermically. Chloroform was used as an anesthetic. The small intestine was then examined for injuries and one lacerated and perforating wound was found. The eviscerated portion of the intestine was much bruised. The intestinal wound was closed with a Lembert suture. The intestine was then returned to abdominal cavity, and the cavity flushed out with normal saline solution. Because of the bruised condition of the intestine, a subsequent fistula was anticipated and the abdominal wound was not closed. A drainage of iodoform gauze was placed in opening and a protective dressing applied.

Attention was then directed to the thoracic wound. The ragged edges of the wound were trimmed away, the broken fragments of bone removed, the wound irrigated with peroxide of hydrogen and normal saline solution, lower part closed with silk worm gut sutures, drainage inserted, and a dry dressing placed over all.

The fragments of bone were removed from injured hand, the severed tendons united and the wound partly closed with silkworm gut sutures. Drainage was used, and the hand dressed antiseptically.

The operation lasted twenty-five minutes. The patient was put to bed, heat applied to the extremities and stimulants of strychnin sulphate, gr. 1-30, hypodermically, and a nutrient enema were given. The latter was repeated in the afternoon. The patient was catheterized three times during the first day, and was given morphin sulphate, gr. $\frac{1}{4}$, hypodermically thrice during the same interval of time. The pulse for the first twenty-four hours ranged from 96 to 106, and was of good tension. The temperature during the first forty-eight hours after the operation ranged from 96° to 100.8° , and in fact at no time did it go above 101° .

On the evening of the first day the patient was allowed a little orange juice, and commencing from that time was given cracked ice at regular intervals. On the morning of the third day the patient was given calomel, gr. 1, in divided doses, and two hours after the last dose was taken a drachm of magnesium sulphate was given every hour until there was produced a good movement of the bowels, which took place that afternoon.

The wounds were dressed each day during the first three weeks. On the tenth day after the operation a fecal fistula was formed, which lasted for a week and healed without any operative treatment. There was also some sloughing in the lower wound, but with these exceptions the repair of the wounds was uneventful.

The diet was gradually increased from liquid to semi-solid and then solid food. The patient's condition rapidly improved, and on June 27 the man was discharged from the hospital. Since that time the lower wound has gradually decreased in size. The patient wears an abdominal support. The thoracic injury is practically well and, with the exception of weakness in the injured region, the injury causes no especial inconvenience to the patient. The wound of the right hand is now healed and movements of little finger are good.

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SEPTEMBER, 1905.

NO. 9

ANNUAL MEETING OF WASHINGTON STATE MEDICAL ASSOCIATION.

This meeting will be held at Tacoma, September 27, 28 and 29. Preparations have been made by President Yocum and the Committee of Arrangements that will ensure interesting and successful sessions, provided the profession of the state will do its duty by attending in goodly numbers and participating in discussions, thus demonstrating that each has a personal interest in the welfare of the Association. The fact has been frequently illustrated that the man who lives in discord with his fellow practitioners, becomes a burden to himself and patients and degenerates into a misanthrope, is he who takes counsel alone with himself, avoids the medical gatherings of his colleagues and refuses to support the institutions designed for mutual benefit. It is to be hoped that the State of Washington will exhibit few physicians of this class, but that ere long all the reputable men and women of the profession will be united into a powerful and influential body.

At this meeting Dr. J. N. McCormack, of Kentucky, chairman of the Committee on Organization, of the American Medical Association, will be present and will make addresses on organization of the medical profession and other subjects of interest to the physicians of the state. Dr. J. E. Bloodgood, of Johns Hopkins Hospital, of Baltimore, hopes and expects to attend and will deliver an address on, Early Diagnosis of Malignant Disease.

While the program has not been completed, a partial list of subjects and writers has been prepared. The effort has been made to so arrange the topics that many members, from all parts of the state, may participate and that as many phases as possible of each subject may be presented, as shown in the following symposia. Each paper will be limited to ten or fifteen minutes.

PRELIMINARY PROGRAM.

SYMPOSIUM ON PREVENTION OF INFECTIOUS DISEASES.

- I. Acute Contagious Diseases of Children: Scarlet Fever, Diphtheria, Small Pox, Chicken Pox, Whooping Cough.
Sources of Infection and Manner of Contagion.
By W. N. Hunt, Bellingham.
Prophylaxis of, in Houses, Schools, Etc.
By L. L. Love, Taeoma.
Duration of Danger of Contagion after above and Disinfection.
By H. G. Lazelle, Seattle.
 - II. Typhoid Fever: Prevention of; Control of.
Sources of Infection: Water, Milk, Food, Flies, Direct Contagion, Etc.
By J. M. Semple, Spokane.
Early Diagnosis of; Differential Diagnosis from Malaria, Meningitis, Tuberculosis, Etc.
By R. M. Stith, Seattle.
Public and Professional Indifference. Prophylaxis in Cities, Small Towns and Rural Communities.
By E. E. Heg, Seattle.
City and Town Water Supply as bearing on above.
By Dr. Bebb, Taeoma.
 - III. Tuberculosis.
Prevention of and Control of.
By J. Sutherland, Spokane.
Sources and Manner of Infection.
By F. S. Bourns, Seattle.
Prevention of by Educational Methods; by Laws and Ordinances. Notification of Health Authorities of Cases.
By J. B. Loughary or Ivar Janson, Seattle.
Bovine in Relation to Human Tuberculosis.
By S. B. Nelson, Agricultural College, Pullman.
Other Papers bearing on Prevention of above Infectious Diseases.
- #### SYMPOSIUM ON DIGESTIVE AND NUTRITIVE DISORDERS OF CHILDREN AND INFANTS.
- Artificial Feeding of Healthy Infants.
By W. L. Hall, Spokane.
 - Infantile Digestive Disorders: "Summer Complaint" in Children; Etiology and Prevention.
By G. B. McCulloch, Seattle.

The First Five Years of Babyhood.

By W. C. Hastings, Seattle.

Clean Milk Question; Control of Milk Supply.

By C. V. Genoway, Spokane.

Dairy Hygiene. Initial Contamination of Milk in Cities.
How to Produce Best Dairy Milk for Infants in Cities and Towns.

By K. Winslow, Seattle.

Other papers on Food and Feeding of Infants and Young Children in Health and Disease.

SYMPOSIUM ON ARTERIOSCLEROSIS.

Pathology and Etiology: Senile; after Acute Infections (Typhoid, etc.); Chronic Intoxications and Poisons (Lead and other Metallic Poisons, Alcohol, Syphilis, etc.); Auto-intoxication (Nephritic, Intestinal, Hepatic); through prolonged strain, Mental and Physical.

By W. A. Shannon, Seattle.

Symptomatology and Clinical Course.

By P. V. von Phul, Seattle.

Complications and Sequelae.

By C. R. McCreery, Tacoma.

Status of Medicine in Cure of Nephritis.

By G. S. Peterkin, Seattle.

Prognosis of Brights Disease.

By L. R. Markley, Bellingham.

SYMPOSIUM ON CHRONIC DYSPEPSIA AND INDIGESTION IN ADULTS.

Significance of Symptoms of Disease in Upper Abdomen.

By P. W. Willis, Seattle.

Abdominal Pain due to Extra-abdominal Disease.

By J. B. McNerthney, Tacoma.

Methods of Examination in Diseases of Stomach.

By H. S. Martin, Spokane.

Iodin Stain of Leguminous Starches in Feces as an Index of Intestinal Digestion.

By B. S. Paschall, Seattle.

Intestinal Paresis.

By W. H. Axtell, Bellingham.

I. Chronic Gastric Ulcer and Sequelae.

Frequency, Pathology, Symptomatology, Diagnosis, Complications and Sequelae.

By Dr. Matthews, Spokane.

Delayed Transportation of Stomach Contents. Symptoms, Causes, Diagnosis.

By E. M. Rininger, Seattle.

II. Cholelithiasis. Frequency, Pathology, Etiology, Symptomatology, Clinical Course. Diagnosis of Various Stages.

Diseases of Gallbladder and Ducts with Reference to Stomach Trouble, Indigestion and Dyspepsia.

By G. M. Horton, Seattle.

Diagnosis of Gallstone Disease in its Early Stage.

By C. W. Sharples, Seattle.

Commonly Overlooked or Misleading Symptoms of Gallstone Disease.

By C. B. Ford, Seattle.

Clinical History and Diagnosis of Stone in Common Duct, Cystic Duct and Gallbladder.

By N. J. Redpath, Olympia.

Relation of Cholelithiasis to Disease of Pancreas.

By F. N. Essig, Spokane.

III. Appendicitis, Chronic and Sub-Acute, as Cause of Disorders of Digestion.

By J. B. Eagleson, Seattle.

Appendicitis Obliterans.

By G. S. Armstrong, Spokane.

SYMPOSIUM ON EARLY DIAGNOSIS OF MALIGNANT DISEASE.
Of the Uterus.

By C. A. Smith, Seattle.

Malignant Changes in Benign Growths.

By J. W. Bean, Tacoma.

Early Diagnosis of Malignant Disease.

By J. E. Bloodgood, Baltimore.

Therapeutic Uses and Abuses of the X-ray.

By N. G. Blalock, Walla Walla.

SYMPOSIUM ON EARLY DIAGNOSIS OF TUBERCULAR DISEASE.
Respiratory Organs.

By C. Quevli, Tacoma.

Tonsils, Adenoids and Larynx.

By Dr. Henneon, Seattle.

Bones and Joints.

By P. W. Willis, Seattle.

Peritoneum and Fallopian Tubes.

By Dr. Karshner, Puyallup.

Urinary Organs.

By G. W. Hawley, Seattle.

Use of Tuberculin as a Diagnostic Agency.

By W. R. M. Kellogg, Seattle.

Atypical Acute Pulmonary Tuberculosis.

By S. H. Johnson, Bellingham.

SYMPOSIUM ON PROPHYLAXIS OF VENEREAL DISEASE.

By G. S. Peterkin, Seattle.

Life Insurance Examinations.

By G. W. Libby, Spokane.

Surgical Treatment of Infection.

By J. E. Harris, Seattle.

Fractions of Femur.

By H. E. Allen, Seattle.

Additions and changes in the above will be announced in the final program, as well as the leaders of discussion.

Visitors from Portland are expected, as well as from the cities of British Columbia.

The Committee of Arrangements especially desires that all who attend the meeting will travel, as far as possible, via the Northern Pacific railroad and, when purchasing tickets, get a receipt, stating it is for the State Medical Association meeting. If the visitors from the Puget Sound cities will observe this rule, it will enable those from Eastern Washington to save two-thirds the cost of a ticket one way, since every ticket purchased and receipted for counts toward the necessary number of fifty that is required to secure the rate of one and a third fares for the round trip.

MEDICAL NOTES.

Washington Physicians at the Portland A. M. A. Meeting. The following physicians from Washington were registered as members in attendance at the recent A. M. A. meeting:

Adair, B. A. O., N. Yakima.	Love, L. L., Tacoma.
Allen, H., Tacoma.	Luce, F. H., Davenport.
Amesse, J. W., Seattle.	Lynch, C. J., North Yakima.
Armstrong, G. S., Spokane.	Lyons, J. H., Seattle.
Austin, A. S., Aberdeen.	McCreery, W. B., Tacoma.
Axtell, W. H., Bellingham.	McKinnon, A. B., Bellingham.
Baker, B. L., Everett.	MacLean, J. D., Mead.
Baker, N. M., Spokane.	Maguire, E., Pullman.
Ballard, J., Kelso.	Manning, J. F., Everett.
Banks, R., Centralia.	Markley, L. R., Bellingham.
Bartley, J. H., Zillah.	Martin, C. M., Bellevue.
Bean, J. W., Tacoma.	Martin, H. S., Spokane.
Bentley, F., Seattle.	Matthews, A. A., Spokane.
Bickford, E. L., Seattle.	Mead, C. A., Everett.
Bird, F. A., Kalso.	Miles, W. T., Seattle.
Black, C. G., Pomeroy.	Miller, J. F., Oakesdale.
Black, R. G., Vancouver.	Mitchell, D. A., Seattle.
Blalock, N. G., Walla Walla.	Moore, R. P., Davenport.
Booth, J. R., Seattle.	Morrison, W. F., Spokane.
Bridgeford, W. L., Olympia.	Munly, J. B., Spokane.
Brown, J. R., Tacoma.	Northrup, E. R., Spokane.
Bumgarner, C. S., Thornton.	Neville, E. C., Seattle.
Cardwell, W. C., Pomeroy.	Newlands, G., Seattle.
Case, C. E., Tacoma.	Newman, D. C., Spokane.
Chalmers, J. M. P., Vancouver.	Olmsted, E. DeV., Spokane.
Chisholm, J., Everett.	Osborn, E. St. C., Tacoma.
Clark, E. S., Sumas.	Pallister, W. H., Kennewick.
Clark, L. W., Seattle.	Palmer, D. H., Seattle.
Coberly, L. J., Garfield.	Pearson, M. L., Aberdeen.
Cox, W. C., Everett.	Penn, G. T., Spokane.
Coleman, J. T., Chehalis.	Peterkin, G. S., Seattle.
De Beck, D., Seattle.	Powell, J. M., Spokane.
Dewey, H. W., Tacoma.	Powers, I. N., Clealum.
Dickson, C. L., Renton.	Quevil, C., Tacoma.
Dodson, Z. T., Cleveland.	Randell, G. H., Seattle.
Douglas, W., Tacoma.	Raymond, A., Seattle.
Eagleson, J. B., Seattle.	Redpath, W. J., Olympia.
Ebert, R. G., Vancouver Barracks.	Rhodehamel, H. E., Spokane.
Falk, E., Seattle.	Robbins, M. C., Spokane.
Felch, H. J., Ellensburg.	Rossiter, F. M., North Yakima.
Frank, P., North Yakima.	Ruge, E. C., Shelton.
Gaines, Wm. S., Oakesdale.	Russell, M., Seattle.
Ganson, L., Odessa.	Rust, H. H., Enumclaw.
Gardner, F. P., Seattle.	Schumacher, D. A., Aberdeen.
Genoway, C. V., Spokane.	Sellars, W., Spokane.
Gibson, W. E., Issaquah.	Semple, J. M., Spokane.
Gobe, R. A., Tacoma.	Shannon, W. A., Seattle.
Gordon, R. W., Seattle.	Sharples, C. W., Seattle.
Gray, G. A., Spokane.	Shaw, E. E., Walla Walla.
Greene, H. M., La Crosse.	Slater, H. H., Deer Park.

Hall, J. F., Albion.	Smith, A. M., Tacoma.
Hanley, E. T., Seattle.	Smith, C. A., Seattle.
Harden, C., Pe Ell.	Smith, J. S., Bellingham.
Harrison, A. B., Seattle.	Snow, A. G., Seattle.
Harrison, I. M., Seattle.	Stafford, E. A., Snohomish.
Harvey, J. R., Sunnydale.	Stephens, L. L., Monroe.
Hawley, A. W., Seattle.	Stevens, J. E., Seattle.
Hawley, G. W., Seattle.	Stewart, S. J., Seattle.
Hedges, F. R., Everett.	Stillson, H., Seattle.
Heg, E. E., Seattle.	Stuht, A. E., Colfax.
Heussy, W. C., Seattle.	Sutherland, J., Spokane.
Hicks, G. S., Tacoma.	Suttner, C. N., Walla Walla.
Hill, F. R., Tacoma.	Sutton, E. O., Tacoma.
Hilscher, F. W., Spokane.	Taggart, E., Bremerton.
Hixon, E. F., Vancouver.	Taylor, E. C., Wickerson.
Holmes, S. J., Seattle.	Thomas, B., Walla Walla.
Hood, C. S., Ferndale.	Thomas, J. W., Seattle.
Howe, G. E., La Conner.	Thompson, C. H., Seattle.
Ingram, J. W., Walla Walla.	Thomson, R. L., Spokane.
James, C., Tekoa.	Tripp, G. A., South Bend.
Johnson, A. E. P., Spokane.	Tromald, E. A., Tacoma.
Johnson, S. H., Bellingham.	Van Vechten, W. B., Tacoma.
Johnson, W., Seattle.	Walston, J., Montesano.
Kalb, C. S., Spokane.	Watkins, I. R., Aberdeen.
Kellogg, W. R. M., Seattle.	Wells, H. R., North Yakima.
Kennicott, G. W., Chehalis.	Wells, W. R., Hoquiam.
Kinnear, C. H., Tacoma.	Willis, P. W., Seattle.
Kirkpatrick, W. D., Bellingham.	Wilson, R. D., Tacoma.
Kniskern, E. L., Centralia.	Wiltse, S. F., Seattle.
Langham, J. B., Seattle.	Wing, P. B., Tacoma.
Leuty, J. D., Farmington.	Wiswall, R. D., Vancouver.
Libbey, G. A., Tacoma.	Wood, C. B., Seattle.
Libby, G. W., Spokane.	Wright, H. A., Wilbur.
Loe, A. O., Seattle.	Yocom, J. R., Tacoma.
Loughlin, O. W., Tacoma.	Yarnell, S., Spokane.

Annual Meeting of the Idaho State Medical Society.—This meeting will be held jointly with that of the South Idaho District Medical Society at Boise, October 5 and 6.

Secretary Ed E. Maxey has sent an urgent invitation to each member to be present and closes his appeal with the following sentiments, pertinent to the physicians of any state or community.

"There are several things the officers of this society want from the members and those interested in the profession's welfare in this state:

"We want each and every eligible physician in the state to be, or to become, a member—an active working member—of our State Medical Society.

"We want each and every member and physician interested in his own and his profession's well-being to attend the coming annual meeting.

"We want those who do attend this meeting to come prepared to 'do things.'

"We want a full program and we expect to furnish you the 'stuff' to fill it with.

"We want you to see, hear and learn that you are 'not the only pebbles on the beach.' There are others who know as much or as little as you do.

"We want you to keep this letter continually before you on your desk until you have made up your mind to comply with all its suggestions.

"And lastly, we want you to fill out and return the enclosed card that there may be no unnecessary delay in the preparation and mailing of the programs.

Licentiates of the Washington Examining Board. At the July examination of this board 94 applicants appeared. Seventeen failed to pass. The names of the successful candidates follow, with the addresses given by them.

C. J. Abrams, Spokane.
 F. L. Ainsworth, New Port.
 U. G. Brier, Bellingham.
 Rose A. Bebb, Tacoma.
 Alfred E. Branden, Walla Walla.
 C. W. Bice, Ritzville.
 J. H. Blake, Chehalis.
 George T. Boyd, Palouse.
 C. E. Bartlett, Green River Hot Springs.
 A. P. Calhoun, Seattle.
 W. W. Council, Seattle.
 I. V. Cole, Sumas, Wash.
 G. F. Cook, Bellingham.
 Walter T. Christensen, Ballard.
 C. W. Carlson, Joliet, Ill.
 Thomas O. Cole, Kahlotus.
 L. M. Closson, Seattle.
 W. H. Corson, Issaquah.
 Frank J. Delaney, Tacoma.
 D. D. Drennan, Rathdrum, Idaho.
 H. Z. Dean, Cheney.
 Carl M. Erb, Lopez.
 George E. Fell, North Yakima.
 A. M. Flynn, Tacoma.
 A. P. Fitzsimmons, Tecumseh, Neb.
 J. W. Gearhart, White Salmon.
 H. A. Griener, Seattle.
 Conner E. Gray, Seattle.
 Alfred J. Helton, North Yakima.
 S. S. Howe, Lynden.
 J. F. Hendrickson, Stanwood.
 B. Hahn, Seattle.
 Foster M. Hoag, Spokane.
 T. H. Hanbidge, Walla Walla.
 Warren J. Hough, Kiona.
 F. C. Holgate, Custer.
 E. T. Hanley, Seattle.
 A. E. Johnson, Spokane.

A. M. Johnson, Custer.
 Alfred Karsted, Seattle.
 E. F. Larkin, Franklin, Ind.
 Herman P. Marshall, Pullman.
 Chester C. Moore, Seattle.
 Thomas W. Nuzum, Brodhead, Wis.
 John S. McElvain, Anatone.
 Roy Millsap, Seattle.
 G. F. Midford, Tacoma.
 A. L. Marks, Spokane.
 J. G. Newgord, John Day City, Ore.
 F. V. Mohn, Astoria, Ore.
 K. Nakaki, Portland, Ore.
 John Nywening, Chemawa, Ore.
 J. H. O'Shea, Spokane.
 Fred Peacock, Cathlamet.
 W. H. Payne, Roslyn.
 J. R. Persons, Tyndall, S. D.
 Frank C. Robinson, Walla Walla.
 C. E. Robson, South Bend.
 J. H. Ragsdale, Clarkston.
 B. F. Roller, Seattle.
 H. S. Smith, Seattle.
 C. F. Schiltz, Dayton.
 Hilda A. Simon, Spokane.
 J. Howard Snively, Prosser.
 W. S. Skinner, Charleston.
 John W. Snoke, Seattle.
 Thomas A. Snook, Weston, Ore.
 W. S. Schwabland, Chesaw.
 W. G. Stimpson, Port Townsend.
 Ralph S. Stryker, Spokane.
 William Sellars, Spokane.
 J. W. Sherfey, Washtucna.
 J. F. Scott, Mabton.
 R. S. Thompson, Moscow, Idaho.
 Bert Thomas, Walla Walla.
 C. M. Tinney, Charleston.

The Pennsylvania Osteopath Bill.—Governor Pennypacker, of Pennsylvania, has vetoed the Osteopath bill of that state, and has moreover displayed a refreshing charity in his reasons for doing so. The bill resembles that which we recently referred to as in the Illinois State Legislature. It contained a clause restricting the practice of osteopathy to osteopaths, and forbidding osteopaths to use drugs and surgical operations. If osteopathy contains any truth of scientific value, Governor Pennypacker asks why physicians should be precluded from applying it. On the other hand, if there is anything at all in the use of drugs and surgical operations, why should osteopaths, or any other licensed "paths," be debarred from their employment. Governor Pennypacker's wise decision is based on the two principles that form the keystone of the medical practice arch: First, the practice of medicine is the practice of the healing art by all proved efficacious means of whatever kind. No mode of bringing relief to suffering humanity is or can ever be excluded from the rights of any physician. Our art is truly *pro bono publico*, and all may—nay, must—use every known means that commends itself to them. There can in the nature of things be no monopolistic right in medical practice. Second. As a consequence, no body of men licensed to practise the healing art at all can be rightly prevented by law from practising any known effi-

cacious measure, whether in consonance with any particular theories they may adopt or not. They may, if they are narrow-minded enough, limit themselves. That is their responsibility. The law will have none of it. And very properly so, too. If there is anything in osteopathy, every physician has a right to use it if he so wills. If there is anything in drug therapy, or surgical operations, every osteopath, if he is fitted for a license to practice at all, has a natural right to it, not to be legislated away by any restrictive clauses whatever.—*St. Louis Medical Review*.

OBITUARY.

R. M. DAVIS, M. D.

Dr. Davis was born in Ireland, December 6, 1838, and died from diabetes in Seattle, August 16. As a young boy he came to the United States with his parents, to Central Falls, Rhode Island. There he attended school till the age of fifteen, when he enlisted in the army and served till the end of the war. After his discharge he re-enlisted and served under Gen. Miles, on the plains, fighting the Indians till 1870. During this period he traveled over a large portion of the West, becoming familiar with much of its early history. Both parents being dead at this time, he settled in Oregon. He engaged in railroad bridge construction for some time. Soon he entered the medical department of the Willamette University, where he attended courses of study in the winters and received his degree in 1878. He first practised on the Tillamook river and, in 1881, located in Roseburg. In 1886 he moved to Colfax, Wash., where he remained till 1890. At this time he located in Seattle and practised there till the time of his death. He was married in 1885 and is survived by a wife and two daughters. He was well known as a member of various fraternal organizations and was for more than ten years grand medical examiner of the A. O. U. W. for the state of Washington. He was of a genial disposition, with a fund of humor and wit that made him many friends. In spite of poor health of recent years, he attended to his practice with regularity. His final illness resulted from a night spent with a patient, a few days before his death.

BOOK REVIEWS.

Edited by KENELIN WINSLOW, M. D.

International Clinics. Volume II. Fifteenth Series, 1905. J. P. Lippincott Co., Philadelphia and London. Price \$2.00.

Any introduction to this publication would be supererogation. In

the present volume the first paper by Morse, of Boston, on *The Treatment of Acute Nephritis in Childhood*, compels our attention. In the most important matter of diet, Morse cautions against milk. In this he quotes von Noorden's work (we have previously noted in reviews) which showed that such a dietary puts too much work upon the kidneys in eliminating proteid matter and water. He differs from von Noorden, however, (who considers the proteids of different foods similar in effect), and declares meat-proteids much more harmful in nephritis than milk-proteids. In this connection he recommends the diet—made familiar to us in Seattle by Victor Vaughan—as most suitable in acute nephritis; namely cream and milk, with cereals. The paper is very sound and interesting.

The Treatment of Pulmonary Hemorrhage by Adrenalin Chloride, is the title of a paper by Barty King, of Edinboro', in which he concludes that it is valueless in this condition, since it increases the action of the heart and intrathoracic vascular pressure—and this accords with previous experiments along this line.

Edes, of Boston, gives us one of his characteristic, judicious talks on *The Treatment of Neurasthenia* which is especially suggestive when referring to the action of alcohol, in general and particular.

The X-ray Treatment of Tinea Tonsurans appears to be a great improvement in this hitherto almost incurable disease, as described by Sabouraud and Noire. A very painstaking and thorough monograph by Willson, of Philadelphia, is entitled *The Diagnosis of Incipient Thoracic Tuberculosis*. He will perhaps create some surprise in his statement that a normal pulse and sub-normal temperature are characteristic of this condition. There are many other original papers on Medicine, Surgery, Gynecology, Ophthalmology, Rhinology, Physiology and Pathology, which make this quarterly as popular as it is, but which time forbids us from further noticing.

WINSLOW.

Portfolio of Dermochromes—By Professor Jacobi. English adaptation of text by J. J. Pringle, M. B., F. R., C. P. Second revised and enlarged edition. In two volumes. Price \$8.00 per vol. Rebman Company, London and New York, 1904. For sale by R. W. Southworth, 911 North I street, Tacoma, Wash.

This portfolio of *Dermochromes* comprises two volumes and serves to illustrate the cutaneous affections most frequently met with in practice. The first volume contains more than fifty illustrations, the greater number of which are so colored that they are as true to nature as possible. The list of subjects includes examples from the various classes of diseases of the skin. The second volume is practically a continuation of the first, with the addition of more than twenty-five colored plates, illustrating the many and varied manifestations of syphilis.

To single out any one or any group of plates for special praise would be most difficult as they are all excellent and well selected. The full annotations and review of treatment by Dr. Pringle greatly help in

making the publication a very comprehensive one. To any one seeking enlightenment on a doubtful case, this atlas may be relied upon to render valuable assistance.

REDON.

Handbook of Anatomy. Being a Complete Compound of Anatomy, Including the Anatomy of the Viscera and Numerous Tables, by James K. Young, M. D., Professor of Orthopædic Surgery, Philadelphia Polyclinic; Clinical Professor of Orthopædic Surgery, Woman's Medical College of Pennsylvania; Instructor in Orthopædic Surgery, University of Pennsylvania; Fellow of the College of Physicians of Philadelphia; Fellow of the Philadelphia Academy of Surgery; Fellow of the American Orthopædic Association; Member of the American Medical Association, etc. Second edition, revised and enlarged. With 171 engravings, some in color. Crown Octavo, 404 Pages, Extra Flexible Cloth, rounded corners, \$1.50 net. F. A. Davis Company, Publishers, 1914-16 Cherry Street, Philadelphia.

This book is especially noteworthy for its plates. The colored plates, representing the distribution of the vessels in the extremities, are particularly good. The anatomy of the nervous system is unusually thorough, and the plates showing schematically the distribution of the sensory and motor tracts from the spinal cord to the brain and from the brain to the cord; the distribution of the cranial nerves; the cervical, dorsal and sacral plexus, and the sympathetic system, are extremely useful. The description of the organs of special sense is uncommonly detailed, and the surgical anatomy of the neck, of Scarpa's triangle, the popliteal space, of hernia and the perineum, are well done.

The book stands midway between the standard, unabridged anatomy and the ordinary compend. It does not contain, naturally, as much as Gray, but, on the other hand, what it does contain is more readily acquired through the greater simplicity of the text, and the schematic arrangements, shown by excellent photographic plates, form a very valuable feature of the work.

Winslow.

Stimson on Fractures and Dislocations.—A Treatise on Fractures and Dislocations. For Students and Practitioners. By Lewis A. Stimson, B. A., M. D., LL. D., Professor of Surgery in Cornell University Medical College, New York; Surgeon to the New York and Hudson Street Hospitals, etc. New (4th) edition, thoroughly revised. Octavo, 844 pages, 331 engravings and 46 full-page plates. Cloth, \$5.00, net; leather, \$6.00, net; half morocco, \$6.50, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

Dr. Stimson has furnished us with his fourth edition, in the class book of "Fractures and Dislocations," and at this time has added cuts of X-ray photographs, showing the appearance of many fractures and other conditions in and around the joints that would be almost impossible to diagnose without the use of the X-ray, and has given to the profession a conservative and at the same time an accurate estimate of the value of the X-ray as an aid to the diagnosis of the real condition of the fracture and has not allowed himself to too enthusiastically extoll the use of the X-ray.

Another point that we observe is the rather conservative tone of

the entire text and it strikes the reviewer that, on account of this and the lack of recommendation of many extreme facts by the author, this book recommends itself to the profession as a careful and safe guide.

He reduces the treatment to plain common sense. One more fad and perhaps one that was followed more freely than it should have been, the ambulatory treatment of fracture, is really severely condemned simply by faint praise.

Special splints are described. The chapter upon the complications of fractures is especially valuable. The description of the manner of the repair of fractures is more expressive and complete than usual in a book of this nature, a fair amount of space and consideration being here given to the subject.

Ununited fractures and delayed union occupies a chapter, the treatment of which is simplified as much as possible. We notice, however, in the operation for an ununited fracture, that he rather favors cutting the ends of the bones squarely and holding them together simply by external fixation in place of an artificial retainer. This, of course, follows the general tone of the book in reducing everything to the basis of simplicity and common sense. It is impossible in a review of a book of this nature to take it up chapter by chapter, since that would mean a consideration of many topics. We feel that we cannot too highly recommend this book.

SHARPLES.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR JULY, 1905.

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Adams	0	0	1	0	0	0	3	0
Chehalis	0	0	0	0	1	0	1	0
Cowlitz	1	0	0	0	0	0	1	0
King	0	0	0	0	4	0	9	0
Kittitas	0	0	0	0	9	1	2	0
Klickitat	0	0	0	0	0	0	1	0
Lincoln	0	0	0	0	8	1	3	0
Mason	0	0	0	0	1	0	0	0
Pierce	2	0	2	0	4	0	0	0
San Juan	0	0	0	0	0	0	1	0
Skagit	0	0	0	0	1	0	1	0
Spokane	0	0	0	0	6	0	0	0
Stevens	0	0	1	0	0	0	0	0
Thurston	0	0	0	0	0	0	2	0
Walla Walla	0	0	1	0	0	0	20	1
Whitman	0	0	1	0	4	1	3	0
Yakima	0	0	4	0	0	0	34	0
Bellingham	0	0	2	0	0	0	2	1
Seattle (City)	1	0	10	1	6	1	0	2
Spokane (City)	0	0	0	0	1	0	2	1
Tacoma (City)	0	0	1	0	28	1	9	1
Total	4	0	23	1	73	5	94	6
July, 1904	15	0	35	2	46	9	38	2
Total 1905	67	3	478	11	502	44	202	32
Total same period 1904	6	6	792	36	681	97	273	63

ELMER E. HEG, Secretary.



JAMES R. YOCOM

PRESIDENT WASHINGTON STATE MEDICAL ASSOCIATION, 1904-1905

NORTHWEST MEDICINE

October, 1905

ADDRESS

THE ORGANIZATION OF THE MEDICAL PROFESSION.*

By J. N. McCORMACK, M. D.

Bowling Green, Ky.

National Organizer of the American Medical Association.

A little more than five years ago, at the request of Dr. Keen, of Philadelphia, Chairman of the National Committee on Organization, I took up the work I am now engaged in, and for the next two years my time was devoted to visiting the various state organizations in different sections of the United States, and laying before them the plans and purposes which the American Medical Association had in view in formulating its plan of action and organization. At the end of these two years I was requested to take up the work in a more detailed way and visit the various districts and counties in such states as might be recommended for the work. For the past three years I have been going from state to state, from county to county and from district to district within the state, meeting with the local profession and discussing with it its condition and its needs in a very close way, not only addressing the doctors but taking up the matter with them in heart to heart talks, and in this way coming into close relations with the various members of the section of the country in which I have been working. I have been able to meet a condition which has probably never been possible to any other man in this country before, and it is in the light of these experiences that I am here to talk the matter over with you. So far as the American Medical Association is concerned, my visit is purely an altruistic one. I have no business relations with that organization. I am sent out entirely in the interest of county associations. I cannot accept an application for a subscription to its journal.

My attention was first called to the desirability of an organization in the course of my duties as a state officer down in Ken-

*Delivered before the Washington State Medical Association, Tacoma, Wash., Sept. 21-29, 1905.

tucky, my native state. For more than a quarter of a century, I have been Secretary of the State Board of Health; ever since its first medical law was written, I have had charge of that statute, and for a little more than 25 years I have been chairman of the committee on legislation of the state society, attended each session of the general assembly, looking after its legislation; in this way I was brought into close relationship, not only with the medical men of my state, but the laymen.

Coming in contact with senators, representatives, bankers, lawyers, farmers, and others, I was told every day—not offensively—“this measure that you are advocating, doctor, appears fair upon its face and looks to be in the interest of the people but, to be frank with you, I have but little respect for the medical profession.” They would tell me that there was “only one doctor in this country that I respect and he is my family physician, and he has told me over and over again that he was the only doctor that could be trusted for anything. He has told me of so many mistakes that the other doctors have made that I have a contempt for your profession, and I am satisfied that he was telling the truth because he told me of it in confidence and he didn’t want me to say anything about it to anyone.”

I have never seen a malpractice suit, and I have been in contact with many of them, but what you were pretty sure to find struggling behind the plaintiff and his attorney some envious doctor who was furnishing the material for the attack upon the profession and good name of his neighbor. And so the minds of the laity have been poisoned against one of the best professions on the earth by this small, narrow-minded policy I have represented to you. These men I have spoken of as officers of the state were elected and took their oaths of office as representatives, as congressmen, as judicial officers, with a bias against our profession, which rendered them incapable of doing it justice.

I found that, from Maine to California, from the Great Lakes to the Gulf, this condition existed, with some notable exceptions, though I believe this state, in a great measure, to be a partial exception to the rule. I found that this black cloud of envy, slander and falsehood hung over this profession of ours, cursing and blighting it everywhere, hampering its effort to secure legislation, and crippling it from enforcing such legislation as was secured.

Finding that these conditions were so wide spread, I began an investigation of medical literature to know how long we had been going on at this rate and I found that, in coming down through

European history, the profession had always been cursed in this manner. I shall attempt to show you before I take my seat that the profession does not suffer anything in this country that it has not brought on itself and that it can be traced at once to our own ranks, that we are cursed by our own folly.

It was some comfort to me to find that this condition was not confined to the medical profession. I found that it was common to all men whose followers led segregated lives. It curses the banking business, it curses the clergy almost more than our profession, but I found in one of the greatest professions, this evil had never had a foothold; lawyers have lived in peace and plenty all these ages.

Two lawyers cannot be induced to quarrel, except for a fee secured in advance. There is an unwritten law that the sun shall not go down on the wrath of two lawyers. Over and over again, in my experience and study, and I have had a large experience with courts, I have seen lawyers, earnest and honest, use language so bitter that it seemed unendurable, and I have seen them come to blows even, and yet within five minutes after court adjourned these two men could be found going to some place where liquid refreshments are served.

Over and over again, I have seen two or three or four doctors in consultation on a matter and finally, when one thought they were earnestly discussing something, you would find all of them taking it by turns, telling about some real or imaginary grievance that they had had with some other doctor twenty years ago, barred by every statute of limitations in this Union, and nine cases out of ten what they were saying was false, and they knew it was false when they were telling it. They may be good, Christian men, for I find that doctors will go to church and sing and pray and go home and slander their neighbors—if that neighbor is a doctor.

Now, these are not pleasant things to say. I wish it was not necessary to say them, but the time has come when it is necessary to face this evil and overthrow it. "A condition and not a theory confront us." The interests of the profession demand it, and it would not be proper for me to stultify myself and go over this country from one end of it to the other unless I painted things as I saw them, in the hope that some one might come after me and have the more pleasant task of painting what I would like to see.

I began to look over the country to find whether these conditions were universal or not, and I am glad to say that they are not. We found in many sections of this country these evils had been practically eradicated by the local organizations.

I found in the state of Alabama, a poor state, imoverished by four

years of cruel war, that in 1869, Dr. Cochrane, a philanthropist and a statesman, found his profession so poor that he abandoned his practice and attempted to organize it. In four years time he had visited and organized the profession in every county in Alabama, though a great many had only four or five physicians each. He brought over 95 per cent. into the societies, and you can easily do it in this state, within a year's time, if you are willing to make a little sacrifice and do the work.

In 1873, after getting the profession organized, he went around quietly, and when the next general assembly was elected, it was found that nearly one-half of the House and Senate was made up of the leading doctors of Alabama, with Dr. Cochrane himself, a great senator, leading his organization at that one session of the legislature. He had laws put upon the statute books, because the profession was represented strongly. You can't do that here because you don't represent the doctors of this state; a large number of them are not enrolled or members of your societies. At that one session of the legislature the profession of Alabama made their laws and they so remain to this day.

Had our friends in the medical profession been as wise as the legal, boards of health would have been as much the warp and woof of this government as the laws enacted by legal profession; but our ancestors were too busy with each other to give attention to these matters.

From that day of organization to this, in Alabama, the profession has become a part of the state government; there has never been a bill introduced into that legislature, upon any medical matter, that was not formulated and endorsed by the State Association. There has not been a quack doctor in that state. You can have the same thing in the State of Washington by deserving and working for it.

We took up this work in Kentucky several years later, not nearly in such a perfect manner as in Alabama, but I am glad to say that we have not a quack doctor in the state. Our profession, in a modified way, has come into close contact with the political organizations.

Now, then, the question comes up as to what kind of organizations are necessary to bring about these results. We attach no importance to the American Medical Association. Nominally, I represent that great body, the greatest body of medical men that exists in the world today. Those of you that attended the meeting in Portland know what kind of meetings they have, but it was

in session only four days and then is gone like the mist of the morning. The same is true of this state organization. You are not able to accomplish much in three days, except in a scientific way. You are certainly not able in a large body like this to discuss any large question of legislative reform, for reasons which will be very apparent, and that brings us to what constitutes that basis of the real organization.

We believe that if this work is to be carried out in the United States, the local societies, the county organizations, are the agencies through which it should be effected. We believed that as soon as the various states had adopted this plan of organization, and forty-three of the forty-five states have adopted it, the matter would go along very nicely. The county societies were organized everywhere and in two years' time over 1800, of 2830 counties, had nominal organizations or societies, but when we came to make an investigation we were greatly surprised to find that most of these local organizations had no existence except on paper. They were really nominal societies, and for this reason I was directed to take up this work, and for five years I have been a stranger to my own home.

At a meeting in Indiana last fall, of representative men, a body representing ten counties, after I had spoken something as I have tonight, and the time came for discussion, a very distinguished surgeon of a little city, began by saying; "I have listened with interest to what you have had to say, but my county society has gone very much further than the American Medical Association. More than a year and a half ago, as soon as we had organized ourselves, and we had brought into membership every doctor in the county, it was proposed that we take up regular, post-graduate work. I was elected to give lectures, with practical demonstrations on cadavers. One of my friends was teaching chemistry: he went to Chicago and took a post-graduate course that he could do it the more efficiently. We thought at first that we would have nobody present except the physicians of the city, with occasionally one from the county, but we found, very much to our surprise, that we hardly ever had a vacant chair, and that the doctors would come eight or ten miles from the country. We had a lunch afterwards and a social time. A protest was raised that we were not giving enough time to this work and after discussion it was moved to meet every other night, and during the whole of last winter we held three meetings a week, and had present nearly every member of the profession in this county. The work grew in interest from

the very beginning, and now we have procured our rooms for the coming winter, and we are going to take up two other branches in the same way."

At that time I was told that some of the doctors, on account of the evils of which I had spoken, rate cutting, soliciting practice, etc., were so very poor that they were crippled in the every day, life-saving work, unable to procure enough to enable them to take up post-graduate work. They said they had discussed the matter several times, but had been afraid to make a move for fear of bringing down the wrath of the community upon them.

I told them I knew of one place where it had been settled very satisfactorily. Two and a half years ago there were two cities in the county, one with a population of thirty thousand, the other with fifteen thousand, with a profession of one hundred and seventy. I suppose they ought to have taken post-graduate work first, but they didn't, because the poverty of the profession was so pressing. They held a number of meetings and discussed the matter very thoroughly, and finally concluded to notify a number of the leading laymen to meet with them and secure the benefit of their advice. At the next meeting they had fifteen or twenty of the leading men with them, and when it was made plain to these business men that the profession of that county was hampered in its work, a bank president said, "This is the most startling thing that I have heard; that the doctors of this county, my family physician, and if not mine, that of some one who has loved ones, is crippled on account of poverty in this rich, prosperous country, is so surprising that I can hardly believe it. It is your fault that you never made this situation known before." They had several meetings like that, and the whole matter was reformed and straightened out. A fee bill was arranged and hung up in every office in the county and it went into operation without the slightest difficulty or criticism.

My idea is that there ought to be the frankest discussion with the public along this line. We have held our meetings like secret lodges. Our local meetings have been practically executive and nothing has gone out to the public, and I am surprised that we would not let our left hand know what the right hand was doing, for often the right hand was doing nothing. I have discussed this before like audiences in Kentucky, and I have asked the doctors to invite members of the profession to be present and also laymen, and to discuss with them the dangers of an unorganized profession. I believe it is easy to impress upon any intelligent layman

that if he has a physician in his community—his family physician, say—and he is not taking post-graduate work somewhere, if he is not doing work at home, or is not taking frequent courses at some medical center, is not being supported properly, that it is only a question of time when that man is going to be a source of danger to every man dependent upon him in time of sickness. I believe it is an easy matter to demonstrate that proposition, and the time has come to take it up and discuss it with the public.

One of the next questions is the relation of the medical profession to the drug stores, very many of which are simply depots for the distribution of quack patent medicines. My idea is that a committee ought to be appointed to confer with the druggists, ask for the appointment of a similar committee from the druggists for removing the evils and disagreements. They complain of injustice from us. I believe the time has come when these matters should be remedied.

The evil of substitution is so great that the time has come to meet it. Our drug store friends are good citizens, and I believe they are ready to meet us half-way. In discussing this proposition last fall before a county society I was told that the evils of substitution were overdrawn in my mind. I said let us see if it is, let us write out this prescription and send it to six drug stores. It was accordingly done. The bottles came back very promptly; two of them were filled properly; two of them substitutions and two of them had glycerine. I believe we should see that patients get what is ordered for them.

We ought, also, to come into closer relation with the newspaper fraternity. We have been able to secure the active co-operation of a leading newspaper in Kentucky in all of our great reform work. It has helped us eradicate quackery. Mr. Watterson's partner told us he was satisfied that the support his papers had given us had cost them not less than \$25,000. He said, "Just as soon as you convinced us that it was a dishonest imposition to the public, there was nothing else for us to do but dissolve partnership with quacks and support the doctors." You will find, if you take up these questions in the proper, tactful way, the owners and managers of the great papers of your state will appreciate the seriousness of this matter, when it is properly put before them.

There is another great fraternity, the clergy. Quackery has long been supported, as some one has said, upon the certificates of clergy and tattling old women. I yield to no man in my respect for the clergy. I know their influence with the public. I know their influence with the public. I know how important it will be

to us and I feel that the time has come to reach out to them. I would suggest that in every county in Washington, a committee be appointed to confer with the ministerial associations, and ask them to discuss matters of interest to us both. If you do this, you will find that a majority of them will be willing to do it.

I have tried to put before you that everything depends on organization, that is, the organization of the county society, that in every county in this state, where there are three or four doctors, there ought to be an organization. Many of the county societies in Alabama contain only four or five doctors. The greatest society that we have in Kentucky is in a county that has but three or four doctors, and they have brought greater benefits to the profession and still more to other people than would have seemed possible through the work of so few men.

There is not a source of information open to a doctor in Brooklyn or New York that is not open to every doctor in the most remote hamlet in the State of Washington, and I hold that this great profession of ours is false to its trust, to itself and to humanity, until we have at least attempted to put a competent doctor within the reach of every family in this country. If there is a quack practising in your state, if he is robbing your people, as he is doing if he is a quack, if there is an incompetent man practising, the profession is responsible for it.

In conclusion, I want to put before you my conception of what the individual doctor ought to be, because no chain can be stronger than its weakest part or link. The doctor in every community in this commonwealth ought to be the cleanest man in it; the cleanest man morally, because he comes into the home relations as a family physician and adviser. He ought to be the best supported man, for it is only a question of time that he will fail unless supported. He ought to be the best supported man because he is the hardest-worked man. The banker, the lawyer, the working man goes home to a night of rest, but the doctor's work is never done. His home in the country districts ought to be a center of refinement, from where there will go out a refining influence to every family. He ought to be the kind of man that every good mother and every good father would point out as a model to their children; and, above all, he ought to be the kind of a man that would no more say a word in disrespect of another doctor or a brother physician, than he would of the best woman in the community. I can only hope that you will see fit to thoroughly organize in every portion of the state, because I know of the great benefit that will accrue to you.

ORIGINAL CONTRIBUTIONS.

ANURIA.*

By PARK WEED WILLIS, M. D.

SEATTLE, WASH.

The importance of the functions of the kidneys is of such magnitude that provision has been made by Nature for two complete machines, each kidney and ureter being able to perform its function independently of the other and, in case one is laid up in ordinary for repairs, the other continues the work thrown upon it by the economy. It is comparatively infrequent that both stop work at one time and, hence, anuria is not a symptom of very common occurrence. The subject of anuria strictly means no urine. At the same time, writers on the surgical branch of this condition have discussed under this heading both partial and intermittent stoppage of the urine.

Our subject naturally has two subdivisions; first, those cases in which there is failure of secretion due to disease of the kidneys; and second, those in which there is obstruction to the outflow of urine from the kidneys to the bladder. The first class belongs mainly to internal medicine, although surgery is knocking at the door and is gaining entrance by relief of a certain proportion of these cases. The obstructive form, on the other hand, lies entirely within the domain of surgery.

One of the most elaborate articles on the subject of anuria is that of Henry Morris, in his "Surgical Diseases of the Kidney and Ureter," and more recently there is a very complete and satisfactory paper by Arthur Dean Bevan, of Chicago, in a recent number of *Annals of Surgery*.

First we will very briefly consider the medical aspect of our subject. Scanty urine is almost always present in acute nephritis from any cause and this, in most severe forms, may result in complete anuria. The nephritis, of course, may be due to various causes such as the poisons of infectious diseases or drugs, or may be engrafted upon chronic disease of the kidneys. In these cases uremic symptoms will usually appear early. The basis of treatment for such conditions is free purgation and sweating, causing the bowel and the skin to do work which the kidneys

*Read before the Oregon State Medical Association, Portland, Ore., 1904.

have refused to do and the injection, by rectum and subcutaneously, of large quantities of normal salt solution to wash the poisons from the blood and to assist all emunctories in their work.

It is our purpose in this paper to consider especially the surgical aspect of anuria. Among the cases above alluded to as belonging to the medical side of this question there will be a certain proportion in which the anuria cannot be relieved by medical means and in which it is certain that the reason for such anuria lies in the kidneys themselves rather than in the general system. In this case the operation of Dr. Edebohls, which consists in splitting the capsule and freeing it from the kidneys which are then kept in direct contact with the muscular tissue of the back, is the proper procedure, not only justifiable but really demanded as the best treatment, providing the patient can have proper surroundings for careful and rapid operating. It is hard to explain the great relief given these patients, although the following theoretical explanations seem plausible: First, there is a relief of tension within the kidney; second, there is a new blood supply from the muscle with which it is in contact; third, we bleed the patient locally which has the advantage, as far as it goes, that general blood letting has which is a well recognized method of treatment; and fourth, a possible effect from the operation similar to that of a counterirritant. This operative procedure applies not only to complete anuria but also to many cases that are not so far advanced.

Other forms of non-obstructive anuria are the reflex due to injury or intrarenal pressure of the opposite kidney, hysterical, traumatic and that due to lesions which gradually destroy one kidney and then the other, such as tuberculosis or polycystic degeneration. According to the best authorities, the reflex is rare and the hysterical more so, if, indeed, it occurs at all. In case of injury the cause of the anuria may be due to damage to the kidney structure or its nerve and blood supply or possibly injury of one kidney with a reflex condition in the opposite organ, or, finally, what I believe should not be a very uncommon cause, the formation of blood clots stopping the ureters.

Of the obstructive forms the most important is that due to calculus, either in the kidney or its pelvis or some portion of the ureter on one side with loss of function on the other, due either

to calculus or some other form of obstruction or disease or possibly to a reflex condition. Usually there is previous loss of function on one side although simultaneous obstruction of both ureters is a possible occurrence. We may also have stoppage of these passages by crystals, pus, or blood clots. There may be also stricture of the ureter or valve formation. Then, again, there may be kinking of the ureter where the kidney is abnormally movable, and, lastly, stoppage of the passage by pressure from the outside such as uterine cancer or fibroma.

The diagnosis of pus, blood, or crystals, as the cause would be made from the history of the case and especially of previous urinary examinations and by exclusion. Kink in the ureter might be suspected when the kidney is freely movable. In case of uterine cancer, which Morris gives as the most frequent cause of obstruction after that of calculus if not more so than that, the diagnosis is easy from the condition present, although the obstruction has been known to occur before the outward evidences of cancer were manifest. The diagnosis of polycystic or tubercular disease of the kidney is made by the symptoms and signs of these diseases. In case of calculus in the ureter, which is the most important cause from a surgical point of view, there may be a disease of the kidney or possibly congenital absence or very frequently a history of repeated renal colic on one side and later colic beginning on the opposite side followed by anuria. This may be complete or, according to Dr. Morris, it may be almost complete or often there may even be a polyuria with great deficiency in excretion of urea. Pain and tenderness with muscular rigidity on the more recently affected side are important clinical symptoms. In complete obstruction of the ureter the corresponding kidney ceases to functionate and, where there is a partial obstruction, there is likely to be hydronephrosis so that in a given case of anuria, where there had been pain on both sides, the more recently obstructed side would be more likely to show more or less enlargement of the kidney due to hydronephrosis.

A special point of importance in regard to the symptomatology is the fact that the patient may seem so remarkably well. For instance, the patient who has had complete anuria for a week or more may be walking about and seem to be in apparently good health. After the first two or three days, however, he is in grave danger at any moment of having fatal symptoms develop.

The treatment of these various obstructive forms of anuria is usually an early nephrotomy on the more recently affected kidney. According to Dr. Bevan, this operation should, if possible, be within the first forty-eight hours. Nitrous oxide is probably the best anesthetic, although ether or cocain may be used. Drainage is placed in the kidney and in the majority of cases sufficient urine will be excreted from the lumbar incision to restore the patient to proper health for further operative procedure. If this should not give the relief which is expected, the other kidney should be operated upon in the same way a day or so later. When the patient has been restored to his usual condition of health the formidable operation for the removal of the obstruction may be undertaken and this will, in the majority of cases, be highly successful, especially in calculus anuria. By the removal of stones from the passages and giving free flow to the urine to the bladder, the kidney will soon be restored to practically the normal condition.

In conclusion I wish to emphasize the following points:

First, in all cases including the obstructive there is actually a failure of secretion by the kidney.

Second, there is an important difference in symptoms depending upon the cause. When the disease is in the secreting kidney structure itself, uremic symptoms will at once be a prominent feature, but where an obstruction to the outflow of urine exists uremic symptoms will usually appear only after several days.

Third, the apparent good health of the patient while he is really a very dangerous condition.

Fourth, an early diagnosis of the cause is important.

Fifth, when operative interference is deemed advisable this should be early in order to accomplish the best results.

THE SURGICAL TREATMENT OF INFECTIONS WITH ESPECIAL REFERENCE TO THOSE OF THE EXTREMITIES.*

By JOSEPH E. HARRIS, B. S., M. D.

Seattle, Washington.

Attending Surgeon Wayside Emergency Hospital.

Infections of various kinds are among the most common pathologic conditions the physician is called upon to treat, and the end to be sought is the elimination of the process as rapidly and with as little inconvenience to the patient, both with regard to immediate and ultimate results, as possible.

The three infections that we have, for the most part, to deal with are those caused by the staphylococcus pyogenes aureus and albus, and the streptococcus, the last of which is by all odds the most virulent and refractory to treatment. We are all familiar with the appearance of infection, the innocent looking reddened area or small furuncle on some part of the body, usually the extremity, accompanied or not as the case may be with pain, limited or more often extending up the arm or leg, to be followed in a few hours by the red streaks along the course of the lymph channels,—the warning of the rapid extension of the pathologic process.

The general system reacts to the influence of the septic material, the temperature rises, chills may make their appearance, the pulse is accelerated, the face flushed and the patient assumes the septic facies so well known. Untreated, the process goes rapidly on, halting perhaps for a few hours or a day or so at the first collection of lymph glands, breaking these down and extending until, either by the reaction of the body limiting itself with the result of an impaired or unless extremity or suppurating lymph glands, or death is caused from septic poisoning. This picture is not exaggerated, and it is to this class of infections that I wish to call your particular attention.

We have to consider, in the treatment, three points. The opening and drainage of the focus of infection; the prevention of the advance of the process and the correction of the constitutional condition.

The septic material travels along the lymph channels, which circulation depends upon muscular contraction; and as long as the patient is up and about, just so long will the products of in-

Read before the Washington State Medical Association, Tacoma, Wash., Sept. 27-29, 1905.

flammation be disseminated through the body. It is a well-known fact that, in the beginning of an infection, after a night in bed, the patient feels much better, the pain is markedly less and the general condition improved, but as soon as he begins to work or move about the pain comes back and the general symptoms are exaggerated, owing to the aforementioned fact of the stimulated lymphatic circulation. The indication here is for rest; the more complete the better. The constitutional condition, in cases seen early, is usually not alarming, and the local treatment combined with a free catharsis generally suffices. In late cases, however, the general treatment is of great importance and will be considered later.

So much for the indications, now for their treatment. Free incision of the point of infection at once. This allows the septic material to drain off, relieves tension and thus controls pain. I do not believe in incision early at any point but the original source of infection and then only through the reddened area. It is to my mind a mistake to incise along the course of advancement, except in those late cases where pus has already formed, superficial or deep in the lymph glands, the intramuscular spaces or the muscle itself; then the knife should be used mercilessly. Every pus cavity must be opened and drained, either by gauze or tubing. In the cases in which the infection extends just under the skin, free drainage introduced early usually suffices to control the infection, with the loss of a minimum amount of integument.

Rest;—the patient in bed if possible. If not, as much rest as can be secured. In the severe infections with marked involvement of the extremity and constitutional symptoms, this is an absolute necessity, for just so long as the patient is up and moving about, just so long will the process be uncontrolled or controlled with difficulty.

The dressing to be employed is next to be considered. Dry dressings, ointments, powders and the like are absolutely contraindicated. They dam up the secretions, increase rather than decrease the pain, do nothing toward limiting the process and generally are undesirable. Hot, moist dressings in these cases show their effect more quickly than in any others and should always be used. The question of the dressing to be employed is a broad one. All are good; some are better. Bichlorid, the old stand-by, is coming to be used less and less. It is irritating to the skin, and the danger from poisoning, in solutions strong enough to be of use antiseptically, is to be seriously considered. Carbolic acid in so-

lutions that may be used with safety is useless as an antiseptic. It shines brightly, however, as a local anesthetic. The very best moist dressing, cheap and efficient, is a mixture of two or three parts of saturated solution of boric acid, one part alcohol and a half part carbolic acid, 5 per cent. solution. This is non-poisonous, an excellent antiseptic and, from the carbolic, anesthetic while the alcohol counteracts the cauterizing but not the anesthetic effect of the carbolic. The dressing should be made large, covering not only the point of infection but to and including the next large joint, better, the whole limb. The whole dressing should be covered with oiled silk or rubber protective and the limb slightly elevated. Every three or four hours a quantity of solution may be poured onto the dressing, thus keeping it moist continually. Under a dressing of this sort, the pain is quickly alleviated and the process checked in the shortest possible time. In the great majority of cases, the correction of the local condition results in the rapid disappearance of the constitutional. It is hardly worth while, I think, to dose the patient with drugs and alcohol to control the fever and support him. The system is already doing its best to get rid of the septic material and why give it additional work to do. To be sure, in the cases in which the heart is weak, some of the recognized stimulants may be used but, as a general rule, free catharsis at the beginning, a light, easily assimilable diet and hydro-therapeutic measures for the control of fever are all that are necessary. As to the use of the serum therapy, my experience has been too limited to speak with authority on it. In some cases it seems to be of use; in others markedly depressing.

CLINICAL REPORT.

FRACTURE OF LOWER JAW.

By E. H. STANLEY, D. D. S.

SEATTLE, WASH.

Mr. G. B. received a kick on the jaw from a highwayman, resulting in a fracture of the mandible, a little to the right of the symphysis, extending in an oblique direction to a point between the right cuspid and first bi-cuspid. Three weeks after the injury was sustained the patient was sent to me, on March 9, 1905, no attempt at treatment having been made.

A description of the splint, together with the X-ray picture, with the splint in position, may be of interest.

A pinch or Magill band was made for the left cuspid, with a spur on the lingual side, and a short section of No. 16 tube on the buccal, for

the purpose of supporting one end of the arch wire. The friction sleeve-band used on the right molar had the open end of the sleeve pointing distally. A hook was soldered to the threaded bar of band. An arch wire, such as is used in orthodontia cases for tooth movement, was passed through the tube on the cuspid, in front of the teeth and through the friction sleeve on the molar. The nut on the distal end was used to close the fracture. A piece of ligature wire was passed from the spur on the lingual cuspid band to the hook on the molar band. Between the teeth small wires were passed around the lingual wire and also around the arch wire and twisted. The whole arrangement made a very solid structure and, as the patient expressed it, as though it were in a vice.

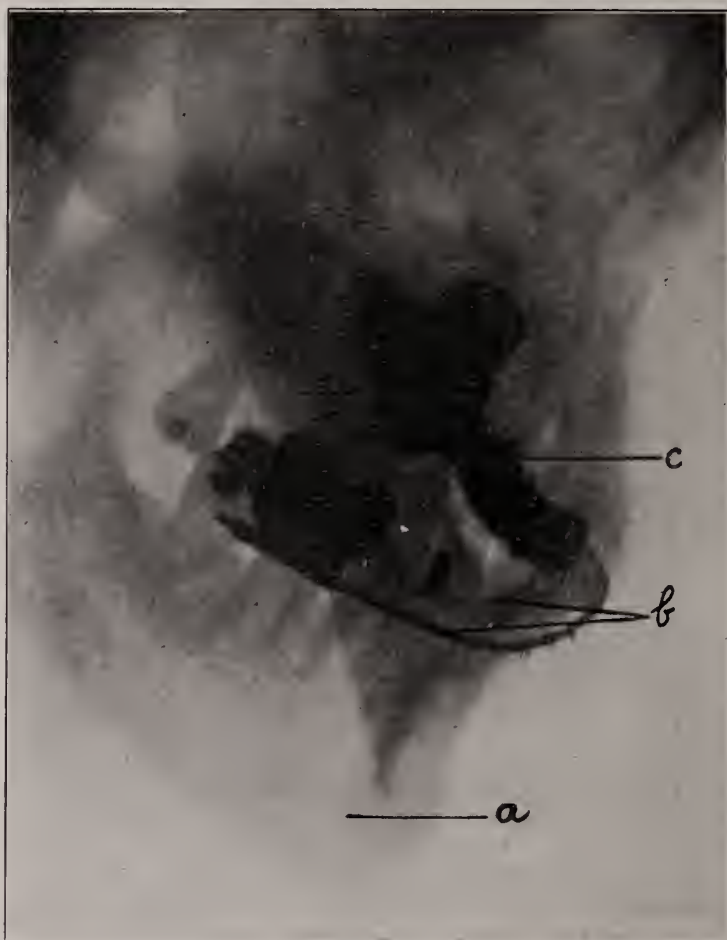


Fig. 1. a, Necrosis at site of fracture; b, the dental splint; c, bridge on teeth.



Fig. 2. Shows occlusion of teeth.

Two days after the splint was in position some looseness was noticed, and several turns of the nut were required to get the required tension.

Mr. B was able to go to his work two or three days after the splint was put on, and did so for thirty days, when untoward symptoms manifested themselves. The accompanying radiograph (Fig. 1) shows, in the light color at the line of fracture, the progress of necrosis. On April 21, Drs. McClure, James and myself, at the Pacific Hospital, operated to affect drainage. The instruments used to remove the necrosed portion were primarily designed as implanting instruments. These bone cutters made a clean cut, and removed all cuttings at the same time. Complete union was found to be established in all points except the parts necrosed. Rapid and complete recovery followed the drainage operation. The splint was removed May 6.

The method of treatment gave the patient free use of the jaw, allowing him to follow his calling, that of a shingle sawyer, during the process of healing, and for the purpose of inspection and cleanliness nothing could be desired.

The last picture (Fig. 2) shows the occlusion of the teeth, at the present time, which is perfect.

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VOL. III.

OCTOBER, 1905.

NO. 10

OFFICERS AND COMMITTEES FOR 1906.

The officers and committees of the Washington State Association for the ensuing year are as follows:

President—G. W. Libby, Spokane.

First Vice-President—L. R. Markley, Bellingham.

Second Vice-President—L. M. Sims, Kalama.

Secretary—C. H. Thomson, Seattle.

Treasurer—A. de Y. Green, Tacoma.

Delegate to American Medical Association—N. F. Essig, Spokane; alternate, J. R. Yocom, Tacoma.

Judicial Committee—E. M. Brown, Tacoma; W. C. Cox, Everett; R. N. Gordon, Seattle; N. J. Redpath, Olympia; C. G. Brown, Spokane; W. Johnston, Colfax; G. W. Libby, Spokane.

Committee on Publication—C. H. Thomson, Seattle; C. A. Smith, Seattle; N. F. Essig, Spokane.

Committee on Necrology—J. B. Loughary, Seattle; C. H. Thomson, Seattle; Chas. McCutcheon, Tacoma; J. M. Semple, Spokane; W. N. Hunt, Bellingham.

Committee to Recommend Ten Names to the Governor from Which to Select Members of the Examining Board—C. W. Sharples, Seattle; E. E. Heg, Seattle; H. W. Dewey, Tacoma; P. B. Swearingen, Tacoma; J. M. Semple, Spokane.

Committee on Press and Public Information—G. S. Hicks, Tacoma; C. A. Smith, Seattle; G. S. Peterkin, Seattle; R. L. Thomson, Spokane; H. S. Martin, Spokane.

Committee on Tuberculosis—F. H. Luce, Davenport; R. M. Stith, Seattle; G. T. Doolittle, Spokane.

THE WASHINGTON STATE MEDICAL ASSOCIATION.

The sixteenth annual meeting, held in Tacoma, will be remembered as an example of what is best in a meeting of a state as-

sociation. Its successful outcome is especially gratifying in view of the prevailing opinion, after the Portland A. M. A. meeting, that it could well be omitted this year. To President Yocum is chiefly due the credit of opposing this sentiment and his energy soon became sufficiently contagious to assure a large and enthusiastic attendance. While the committee of arrangements usually prepares the program of papers, in this case Dr. Yocum attended to the whole work in person, making several journeys to the large cities of the state and obtaining promises for papers from each individual. This personal element was probably responsible for so few failures in presenting promised papers. Out of a program, containing fifty-five numbers, only four or five writers failed to appear and some of these sent their papers.

The leading characteristic of the program was its widely practical nature. While surgery and surgical technic have, of recent years, occupied so much time and attention of medical bodies, somewhat to the exclusion of the broader consideration of medical topics, the design of this program was to magnify the subjects that demand the attention of the general practitioner. Accordingly the symposium plan was adopted and a large number of practitioners invited to discuss various aspects of several diseases which are daily encountered by every physician. In this discussion treatment was considered only to a small degree and most attention directed to the first consideration in any case of illness, diagnosis, supported by the all-important symptomatology. The value of this kind of discussion was generally recognized and materially aided in making this one of the best meetings on record. The only criticism of the program concerned its length. It could not all be carried out in the allotted time and sufficient papers to have filled a half day's program had to be read by title. That so satisfactory a program could be presented without the presence of prominent lights from established medical centers proves that the profession always contains a sufficiency of latent talent and ability to meet the requirements of such occasions if it be properly stimulated.

The presence of Dr. McCormack and his stirring address was an inspiration to all his hearers. It will undoubtedly inspire the profession of the state to greater personal and combined activity and will help to make them more united and harmonious. Though a similar address may have been delivered in many other states and have appeared in other journals, we deem it of sufficient importance to every physician to publish it herein and offer it the profession of the state for serious consideration.

The social feature of the meeting consisted of an evening at the Country Club, on American Lake, where over eighty members assembled. After negotiating an appetizing "country dinner" of large dimensions, several hours were spent in responding to toasts, story telling and songs, under the genial guidance of E. M. Brown, of Tacoma, who obtained responses of various sorts from twenty willing brethren. At the same time the lady physicians and wives of the members were entertained at a reception and afternoon tea, at the home of Dr. and Mrs. Chas. McCutcheon, at Steilacoom..

The number of members and visitors registered was 166. It was a special pleasure to welcome the brethren from Portland, of whom the following were present during a part or all of the session: W. T. Williamson, Wm. House, R. C. Coffey, A. C. Smith, G. S. Whiteside, R. C. Jenney, D. Gray, C. S. White. Those who participated in discussion added to the interest and profit of the papers under discussion. In addition, from other states, were Ed. E. Maxey, of Boise, Idaho.; J. W. Garth, of Clarion, Ia.; H. E. Wright, of Sacramento, Cal., and N. L. Kean, of Osage, Ia.

ADDITIONS TO THE CONSTITUTION AND BY-LAWS OF THE STATE ASSOCIATION.

Special attention is called to the revised Constitution and By-Laws as published in this issue. We advise its careful consideration by all members of the Association, that they may become familiar with the rules and regulations adopted for its guidance. The most important additions are in the increased duties of the Judicial Council, which becomes, in fact, the representative working body of the Association during the interim between the annual meetings. To it will fall the responsibility of fostering the growth and development of the Association, the power having been given it to employ an organizer for this purpose, if this is considered advisable, as well as to grant charters to newly organized county societies. The membership of the Association will await with interest the results of its labors in this line.

Another most important duty is its supervision of medical legislation. Heretofore measures brought before the Legislature have usually originated from individuals who have acted without co-operation and mutual support, thus failing in much of the influence and power that are necessary to accomplish results. This well-known committee should be consulted in all matters of proposed legislation, and from it alone should arise the initiative in matters pertaining to the welfare of the medical profession. When it is known that its demands are supported by the profession of the State, of which it is the representative, they will carry more

weight with our legislators than has been the experience in past years.

To the secretary is assigned the duty of reecording and reporting deaths of members during the current year, a custom which has either been totally neglected in the past or has been performed spasmodically by special committees. At this time a Committee on Necrology has been appointed, which will next year present a report on deceased members of past years, of whom no report has as yet been made.

MEDICAL ORGANIZATION IN WASHINGTON.

The time to strike is when the iron is hot. There has never been such interest displayed, in the state of Washington, as at the present time, on the subject of professional organization, due to the recent visits and stirring words of Dr. McCormack, who has been going up and down the land, persuading the physicians to get together and work for their united good. His visits to the county societies a few months ago, followed by that of the State Association, has served to impress most emphatically, on the minds of the physicians of this state, that they are about as loosely joined together as it is possible to find in any state. They cannot be criticized on the score of prevailing discord or lack of harmony, except in minor and isolated cases. But the statistics show that they are not bound together in component county societies so that they can act unitedly and effectively, as is the case in many of the states.

The report of Dr. McCutcheon, presented at the recent state meeting, gives the estimated population of the state at 874,310, with 35 counties. Only 13 of these contain county medical societies. Last year there were 967 physicians in the state, of whom only 373 were reported this year as belonging to county societies.

The following counties were enumerated, with their populations and numbers of physicians, in which medical societies should be organized:

Counties.	Population.	Physicians.
Adams	12,165	8
Chelan	12,165	8
Clarke	18,281	13
Columbia	7,834	11
Cowlitz	8,500	10
Douglas	12,136	10
Jefferson	8,157	17
Kitsap	13,100	12
Lincoln	19,321	27
Yakima	31,110	34

The report gives the following counties with organized societies: Chehalis, King, Kittitas, Lewis, Pierce, Skagit, Snohomish, Spokane, Thurston, Walla Walla, Whitman, Whatecom.

For the arguments calling for organization of the profession of the state into county societies we refer to the address of Dr. McCormack, published in this issue. Their force and home application will be evident to every reader. Shall we be content merely with assent to these arguments or shall something practical be done to bring the physicians together in one strong, united body? The solution of this question rests with the Judicial Council of the State Association. Hitherto this committee has had an existence in name only, having had practically no duties to perform. According to its newly added duties, the whole responsibility of effecting this desired organization rests upon it. At a recent meeting of the committee, E. M. Brown, of Tacoma, was elected President and R. N. Gordon, of Seattle, Secretary. It is proposed to agitate the question of forming societies in the counties where none exist, and to employ the services of an organizer, whenever local conditions call for it, to assist and complete the work.

THE TRANSACTIONS OF THE TACOMA MEETING.

The committee on publication will follow the custom of recent years in referring to NORTHWEST MEDICINE the publication and distribution of the transactions of the annual meeting. In accordance with this procedure, the journal had planned to publish the transactions in this issue, but having failed to receive the report from the stenographer at the necessary time of going to press, the publication of the transactions must be deferred to our November issue. The papers read at the meeting will be published during the year, in the order which seems suitable, the appropriate discussions appearing in connection with each paper or set of papers.

OBITUARY.

E. W. SHEAD, M. D.

Edward Wadsworth Shead was born February 9, 1874, in Eastport, Maine; died August 19, 1905, in Seattle, Washington, being instantly killed by accidentally falling from the roof of the Madison Hotel, where he resided. The accident was probably caused by a miss-step in crossing from the roof of the adjoining building.

Dr. Shead graduated from Dean Academy in 1893, and from there he went to Brown University, entering Harvard Medical

School in 1897, and graduating with honors, in 1901. He took the six months service in the Contagious department of the Boston City Hospital, served as house officer one year at the Cambridge (Mass.) Hospital, and then in the New York Lying-In Hospital. He came to Seattle in July, 1904, to begin the practice of medicine, locating in the Walker Building. He was a member of the Harvard and Athletic Clubs in Seattle. Dr. Shead was a man of genial disposition, naturally modest and retiring, and generous to an extreme. He had the rare charm of manner which attracts everyone and, though in Seattle but a short time, had many friends and was greatly beloved by all who knew him. His loyalty to his friends, with constant devotion to their interests and his strong sense of honor, were among the many sterling traits which, if he had lived, would have insured for him popularity in his social life and success in his professional career.

REPORTS OF SOCIETY MEETINGS.

KING COUNTY MEDICAL SOCIETY.

President, J. H. Lyons, M. D.; Secretary, C. H. Thomson, M. D.

The regular meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of Sept. 18, President Lyons being in the chair. Thirty-nine members were present.

Memorial exercises were held in memory of the late Dr. R. M. Davis as follows: A biographical sketch was presented by J. B. Loughary. Personal reminiscences were offered by Geo. Warmburg. A committee, composed of J. P. Sweeney, J. R. Booth and Grant Calhoun, presented the following resolutions, that were adopted by the society:

Resolved, by the King County Medical Society, that through the death of Richard Mowath Davis, this society has lost a worthy and enlightened member, and the sick a physician whose humanity was ever ready to administer to their wants, and his family a kind and devoted father; that he was always on duty, whether as a parent, soldier, civilian, or physician, maintaining a genial disposition and hearty greeting.

Dr. Peterkin presented an interesting case of reflex glycosuria, due to traumatism of the urethra.

The prosecution committee reported that, in the case of State vs. Kelley, Judge Griffin dismissed the case from the jury on the ground that the evidence of the forged registration in Lewis county was not clear.

The Committee on Admission and Ethics having reported favorably on the applications of Drs. C. M. Martin, T. Uyematzu, F. A. Booth, and M. L. Adams, they were duly elected to membership in this society.

Dr. Janes, of California, addressed the society on behalf of the Physicians' Mutual Aid Society of the Pacific Slope.

CONSTITUTION AND BY-LAWS OF THE WASHINGTON STATE MEDICAL ASSOCIATION.

AMENDED AT THE SIXTEENTH ANNUAL MEETING, HELD AT
TACOMA, SEPTEMBER 27—29, 1905.

CONSTITUTION.

ARTICLE I.

Name of Association.

The name and title of this organization shall be the Washington State Medical Association.

ARTICLE II.

Purpose of the Association.

The purpose of this association shall be to federate and bring into one compact organization the medical profession of the State of Washington and to unite with similar associations in other States to form the American Medical Association; with a view to the extension of medical knowledge and to the advancement of medical science; to the elevation of the standard of medical education and to the enactment and enforcement of just medical laws; to the promotion of friendly intercourse among physicians and to the guarding and fostering of their material interests, and to the enlightenment and direction of public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself and more useful to the public in the prevention and cure of disease and in prolonging and adding comfort to life.

ARTICLE III.

Component Societies.

Component societies shall consist of those county medical societies which hold charters from this association.

ARTICLE IV.

Composition of the Association.

Section 1. This Association shall consists of members and guests.

Sec. 2. *Members.* The members of this Association shall be the members of the component county medical societies.

Sec. 3. *Guests.* Any distinguished physician not a resident of this State may become a guest during any annual session upon invitation of the Association, and shall be accorded the privilege of participating in all of the scientific work of that session.

Sec. 2. The place for holding each annual meeting shall be fixed by the Association, and the time shall be fixed by the local committee of arrangements.

Sec. 3. The Association may provide for a division of the scientific work into appropriate sections.

ARTICLE VI.

Officers.

Section 1. The officers of this Association shall be a President, two

Vice-Presidents, a Secretary, Treasurer and Judicial Council of six elective members, the President being ex-officio a member.

Sec. 2. The President, Vice-Presidents and Treasurer shall be elected for a term of one year, the Secretary for a term of three years. The Judicial Council shall consist of six elective members, no two of whom shall be from the same county, and shall be elected for three years, two each year, provided that those elected at the first meeting after the adoption of this constitution shall have their terms so arranged that two will expire each year. All of these officers shall serve until their successors are elected and installed.

Sec. 3. The officers shall be elected on the morning of last day of annual session, and when necessary, delegates to the American Medical Association shall be elected at the same time and place.

Sec. 4. A committee of five members shall be appointed to furnish a yearly list of ten physicians who, in the language of the law, "shall be skilled in the profession," from which the Governor of the state may select appointees for the State Medical Examining Board.

No person shall be elected to any such office who is not in attendance upon that annual session, members of the Judicial Council excepted, and who has not been a member of the Association for the past two years.

ARTICLE VII.

This Association shall elect delegates to the House of Delegates of the American Medical Association.

ARTICLE VIII.

This Association shall grant a charter to each of the regularly organized County Societies of this State whose constitution and by-laws conform to the spirit of the constitution of the State Association.

ARTICLE IX.

The Association may vote such amounts as are necessary for expense of annual meeting, publications and other necessary expenses.

ARTICLE X.

The Seal.

The Association shall have a common seal, with power to break, change or renew the same at pleasure.

ARTICLE XI.

Amendments.

This Association may amend any article of this constitution by a two-thirds vote of the delegates registered at that annual session, provided that such amendment shall have been presented in open meeting at the previous annual session.

BY-LAWS.

CHAPTER I.

Membership.

Section 1. All members of the component county societies shall be privileged to attend all meetings and take part in all of the proceedings of the annual sessions.

Sec. 2. The name of a physician upon the properly certified roster of members of a chartered county society which has paid its annual assessment shall be prima facie evidence of his right to register at the annual session of this Association.

Sec. 3. No person who is under sentence of suspension or expulsion from any component society of this Association, or whose name has been dropped from its roll of members, shall be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take any part in any of its proceedings until such time as he has been relieved of such disability.

Sec. 4. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of his society he shall receive a badge which shall be evidence of his right to all the privileges of membership at that session. No member shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

CHAPTER II.

General Meetings.

Section 1. The Association shall hold an annual session at such place as shall have been fixed at the preceding annual session, and at such time as may be fixed by the committee of arrangements.

Sec. 2. The general meeting shall have authority to create committees for scientific investigations of special interest and importance to the profession and public and to receive and dispose of reports of the same, but any expense in connection therewith must first be approved by the Association.

Sec. 3. Except by special vote the order of exercises, papers and discussions, as set forth in the official program, shall be followed from day to day until it has been completed.

Sec. 4. No address or paper before the Association, except those of the President and orators, shall occupy more than twenty minutes in its delivery, and no member shall speak longer than five minutes or more than once on any subject.

Sec. 5. All papers read before the Association shall be its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published.

Sec. 6. A majority of the registered members shall constitute a quorum.

CHAPTER III.

Election of Officers.

Section 1. All elections shall be by ballot and a majority of the votes cast shall be necessary to elect.

Sec. 2. The Association, on the first day of the annual session, shall elect a committee on nominations, consisting of one member from each county whose county society is represented at this meeting. It shall be the duty of this committee to hold one or more meetings, and report the result of its deliberations to the Association in the shape of a

ticket containing the names of one member for each office to be filled at that annual session.

Sec. 3. The report of the nominating committee and the election of officers shall be the first order of business of the Association after reading of the minutes on the morning of the last day of the general session.

Sec. 4. Nothing in this chapter shall be construed to prevent additional nominations being made by members of the Association.

CHAPTER IV.

Duties of Officers.

Section 1. The President shall preside at all meetings of the Association; shall appoint all committees not otherwise provided for; shall deliver an annual address at such time as may be arranged; shall give a deciding vote in case of a tie, and shall perform such other duties as custom and parliamentary usage may require. He shall make annual visits to each county society, the expenses for the same being paid from the treasury of the Association.

Sec. 2. The Vice-Presidents shall assist the President in the discharge of his duties. In the event of his death or removal from office the Vice-Presidents shall succeed him in order of election.

Sec. 3. The Treasurer shall give bond for the trust reposed in him whenever the Association shall deem it requisite. He shall demand and receive all funds due the Association, together with bequests and donations. He shall pay money out of the treasury only on a written order of the President, countersigned by the Secretary. He shall subject his accounts to such examination as the Association may order. He shall annually render an account of his doings and of the state of the funds in his hands. He shall charge upon his books the assessments against each component county society at the end of the fiscal year. He shall collect and make proper credits for the same, and perform such other duties as may be assigned to him.

Sec. 4. The Secretary, acting with the committee on arrangements, shall prepare and issue the programs for and attend all meetings of the Association, and he shall keep minutes of its proceedings. He shall be custodian of all record books and papers belonging to the Association, except such as properly belong to the Treasurer, and shall keep account of and promptly turn over to the Treasurer all funds of the Association which come into his hands. He shall provide for the registration of the members at the annual sessions. He shall keep a card index register of all the legal practitioners of the State, by counties, noting on each his status in relation to his county society, and upon request shall transmit a copy of this list to the American Medical Association for publication. He shall conduct the official correspondence, notifying members of meetings, officers of their election and committees of their appointment and duties. He shall be ex-officio chairman of the committee on publication and a member of the committee of arrangements. It shall be his duty to secure and report to this Association all deaths of members occurring during the current year and arrange for suitable notices and resolutions appropriate for placing upon its records. He shall employ such assistance

as may be ordered by the Association. He shall annually make a report of his doings to the Association. The amount of his salary shall be fixed by the Association.

CHAPTER V.

Judicial Council.

Section 1. The Judicial Council shall be the Board of Censors of this Association, shall consider all questions involving the rights and standing of members in relation to other members or the component societies or to this Association. All ethical questions shall be referred to the Judicial Council without discussion. Their report upon these matters shall be submitted to the Society for final action.

Sec. 2. The Judicial Council shall have the power to employ a State Organizer for the purpose of organizing county societies, and if deemed advisable said Organizer shall visit each Society at least once during each year. In such sections where deemed desirable two or more counties may be organized into one Society, with a hyphenated name of the individual counties. The Judicial Council is hereby given the power to grant charters to such Societies, such charters to be signed by the President and Secretary of this Association.

Sec. 3. The Judicial Council shall have full power to act on all matters concerning the business of the State Association in the interval between the meetings, their action upon such matters to be reported to said Association, subject to its approval.

Sec. 4. This Council shall have a supervision of medical legislation and act on matters of public policy.

Sec. 5. Funds for the maintenance of this Council for each following year shall be appropriated at the annual session of this Association and the amount of expenditure limited by the Association.

CHAPTER VI.

Committees.

Section 1. All committees shall be appointed by the President, except such as the Society may desire to elect, or as otherwise provided for.

Sec. 2. The committee on publication shall consist of three members, of which the secretary shall be one and chairman. The committee shall have authority to arrange for the publication and distribution of the transactions after receiving competitive bids, and shall use diligence in getting them into the hands of the members. All papers read before the Association shall be the property of the Association.

Sec. 3. The committee of arrangements shall consist of the component society in the county in which the annual session is to be held, together with the Secretary of the Association. It shall, by committees of its own selection, provide suitable accommodations for the meeting place of the Association and of its respective committees, and shall have general charge of the arrangements. Its chairman shall report an outline of the arrangements to the Secretary for publication in the program and shall make additional announcements during the session as occasion may require.

CHAPTER VII.

Assessments and Expenditures.

Section 1. An assessment of two dollars (\$2.00) per capita from the membership of the component societies is hereby made the annual dues of this Association. The Secretary of each county society shall forward its assessment, together with its roster of all officers and members, and list of non-affiliated physicians of the county, to the Secretary of this Association not later than the first day of May of each year.

Sec. 2. Any county society which fails to pay its assessment or make the reports required on or before the date above stated shall be held as suspended, and none of its members shall be permitted to participate in any business or proceedings of the Association until such requirements have been met.

CHAPTER VIII.

Rules of Order.

The deliberations of this Association shall be governed by parliamentary usage as contained in Robert's Rules of Order, unless otherwise determined by vote of the Association.

CHAPTER IX.

County Societies.

Section 1. All county societies now in affiliation with the State Association, or those that may hereafter be organized in this State, which have adopted principles of organization not in conflict with this constitution and by-laws, shall, upon application to this Association, receive a charter and become a component part of this Association.

Sec. 2. Charters shall be issued only upon approval of the Judicial Committee, and shall be signed by the President and Secretary of this Association. This Association shall have authority to revoke the charter of any component county society whose actions are in conflict with the letter or spirit of this constitution and by-laws.

Sec. 3. Only one component medical society shall be chartered in any county.

Sec. 4. Each county society shall judge of the qualifications of its own members. School of graduation shall be no bar to membership, providing the applicant does not claim to practice any exclusive system of medicine.

Sec. 5. Before making application in a component society, the applicant must have complied with the laws of this State, and shall have been a bona fide resident of the county in which such application shall be made for at least six months prior thereto.

Sec. 6. Any physician who may feel aggrieved by the action of the society of his county in suspending or expelling him shall have the right of appeal to the Association.

Sec. 7. All appeals shall be referred to the Judicial Council, which may admit oral or written evidence as in its judgment will best and most fairly present the facts, and its findings shall be reported back to the Association for final action.

Sec. 8. A physician living on or near a county line may hold his

membership in that county most convenient for him to attend, on permission of the society in whose jurisdiction he resides. Physicians living in counties, where it is deemed impracticable to organize a society, shall be privileged to join that society most convenient to them. A member removing from a county shall only retain his membership in the society of the county to which he may move.

Sec. 9. The Secretary of each county society shall keep a roster of its members and a list of non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as shall be deemed necessary. He shall furnish an official report containing such information upon blanks, supplied him for the purpose, to the Secretary of the Association not later than the first day of May in each year. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death or removal to or from the county, and in making his annual report he should be certain to account for every physician who has lived in the county during the year.

CHAPTER X.

Amendments.

These by-laws may be amended at any annual session by a two-thirds vote of all the members present at that session after the amendment has laid upon the table for one day.

PROPOSED AMENDMENTS TO THE CONSTITUTION CONCERNING THE CREATION OF A HOUSE OF DELEGATES, TO BE VOTED ON AT THE NEXT ANNUAL MEETING.

MAJORITY REPORT.

In order that our plan of organization may be brought in more complete accord with that proposed by The American Medical Association, your committee recommends the following changes in the constitution:

Amend Article VI by adding the following:

Section 4. A House of Delegates is hereby created to be composed of delegates from the component county societies, the members of the Judicial Council, the President and Secretary of the Association, and one delegate each from the State Board of Medical Examiners and the State Board of Health; Provided, That the two last mentioned delegates shall be members of this Association and shall be nominated by their respective Boards.

Section 2. Each component county society shall be entitled to one delegate for each 20 members or a major part thereof included in its annual report. But each society holding a charter and paying its annual dues shall be entitled to one delegate. Ten members shall constitute a quorum.

Section 3. The House of Delegates shall meet on the evening preceding the general meeting, and at such other hours as may be arranged, in a separate hall or room provided by the Committee of

Arrangements, but at such times as will conflict to the least possible extent with the general meetings.

Section 4. It shall be the legislative and business body of the Association and shall nominate and elect all the officers provided for in the constitution, but no delegate shall be elected to such office. All reports of officers shall be made upon a ye and nay vote.

Section 5. It shall be presided over by the President, or in his absence by one of the Vice-Presidents, and the Secretary shall keep a separate record of its proceedings, a summary of which shall be reported to each general meeting before final adjournment.

Signed,

F. H. LUCE,
JOHN M. SEMPLE,
GRANT S. HICKS,
C. A. SMITH.

MINORITY REPORT.

We are opposed to the addition of the House of Delegates as the working body of the Washington State Medical Association for the reason that we believe that the Association, as it now stands, is not so large as to be unwieldy and that a House of Delegates, as it must necessarily be constituted, would take up nearly all the working force of this Association and is not now demanded by the size of the Association, as it now exists and we do not believe that the idea of providing for the future should lead us to unnecessarily encumber ourselves at present.

We recommend and propose the following amendment to our Constitution:

That Section 2, of Article VI of the Constitution, be amended as follows: Strike out all after the word "years" in line 3 and insert, in lieu thereof, the following: The Judicial Council shall consist of nine members, seven of whom shall be elected by the State Association at the first meeting following the adoption of this amendment, as hereinafter provided for, and their terms of office shall be for three years excepting in the case of the members of the Council elected at the first meeting, when two shall be elected for one year, two for two years, and three for three years; thereafter two shall be elected at each meeting, excepting at the annual meeting, at which the term of office of three members expires, at which time three shall be elected. No two of these members shall belong to the same county society. One member shall be elected each, from the State Board of Health and the State Medical Examining Board, which Board shall be asked to recommend two members of their individual Boards, Provided such Board members are members of this Association. The terms of such members shall be one year. The President of the Association shall be ex-officio President of the Judicial Council.

Signed,

J. W. BEAN,
N. FRED ESSIG,
CASPER W. SHARPLES.

BOOK REVIEWS.

Edited by

Kenelm Winslow, M. D.

Hall's Physiology. A text book of Physiology, Normal and Pathological. For Students and Practitioners of Medicine. By Winfield S. Hall, Ph. D., M. D., (Leipsig), Professor of Physiology, Northwestern University Medical School, Chicago; Member of the American Physiological Society; Member of American Association for the Advancement of Science, etc., etc. New (ed) edition, revised and enlarged. In one octavo volume of 795 pages, with 339 engravings and three full-page colored plates. Cloth, \$4.00, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

Hall's Text Book of Physiology is a sound and scientific work of permanent value. The author is a pupil of Ludwig and himself no mean investigator. The work—now in its second edition—is written in a clear, concise manner, avoiding all controversy but stating the most recent results of reliable investigators in every subject with full references to authorities on the matter in hand. The arrangement of the book is excellent. Each chapter is divided most systematically into various headings and then subdivided into sub-headings, in large print, in the clearest possible manner. The book is most complete although, considering this fact, it is kept within a comparatively small compass.

In the introduction Hall points out graphically the relations of physiology to the other natural sciences and this relationship has been kept very prominently before the reader throughout the work. Thus, to each chapter is prefixed an abstract of the facts drawn from chemistry, physics and anatomy which is applied in the succeeding work.

The book is not especially a student's work—as are so many text-books—but will appeal most strongly to the practicing physician as a work of wonderful interest, particularly if he be a graduate of more than ten years' standing, such has been the remarkable advance in many subjects.

In this connection the present volume presents one exceptional feature which not only sets it apart from most other works of its kind, but makes it of peculiar value to the active practitioner. This consists of the sections on Pathologic Physiology, or the application of the laws of physiology to the symptomatology of disease. These sections are to be found at the end of the chapters on Circulation and Blood, Respiration, Digestion, Metabolism and Excretion, and are incorporated in the bodies of the chapters upon Special Senses and the Central Nervous System.

For example, under the head of Pathologic Physiology of Metabolism, we have thirteen pages devoted to the consideration of such subjects as Glycosuria of various forms, Diabetes Mellitus, Diabetic Coma, Obesity of various types, Hepatic insufficiency including Alimentary Glycosuria, Urobilinuria, Hypoazoturia, Elimination of Crystalloids, Disturbance of Biliary Function, Urinary Toxicity, Digestive Disturbances, and Pancreatic Insufficiency, also the various varieties of.

Icterus, Cholelithiasis and Gout. These subjects have received great attention of late and the bearing of the most recent physiologic studies concerning them have much value and interest for the general physician, as also have all the other sections of Pathologic Physiology.

The type and paper are excellent and the illustrations as well.

WINSLOW.

The Surgical Assistant. A manual for students, practitioners, hospital internes and nurses. With 123 original illustrations. By Walter M. Brickner, B. S., M. D. Price, \$2. Published by the International Journal of Surgery Co., 100 William St., New York.

The author has divided his book into two main sections, the first dealing with preliminary surgical procedures, the second with operative surgical detail.

The chapters, ten in number, in the first section are replete with suggestions valuable not only to the assistant himself but to all connected with the operating room. They give in detail advice regarding examination of injuries, preliminary operative preparation, anesthesia, assistance at the wound, and immediate post-operative care of patient. The second section takes up all the more common operations, giving minutely the duty of the assistant at each.

Two appendices are added, the first containing directions for the preparation of ligatures and a surgical formulary which is good; the second, showing cuts of the various instruments used, is of little value since most of them portray the older forms which have been supplanted by more modern ones.

STURGIS.

Jackson on the Skin. A Ready Reference Hand-book on Diseases of the Skin. By George Thomas Jackson, M. D., Chief of Clinic and Instructor in Dermatology, College of Physicians and Surgeons (Columbia University), New York. Fifth edition, enlarged and thoroughly revised. In one 12mo volume of 676 pages, with 91 engravings and 3 colored plates. Cloth, \$2.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

If the value of a book is attested by the number of editions that are demanded, Dr. Jackson's hand-book is certainly deserving of consideration, for it is now in its fifth edition.

In the preparation of this edition some of the rarer skin diseases, in fact some which are not seen in this country, have been incorporated and this fact, together with the further knowledge that the latest accepted etiologic views on this class of diseases have received full notice, makes the work well worth the attention of the dermatologist.

In this, as in all books, there is a distinguishing feature which at the outset claims the attention of the reader. In Dr. Jackson's book one is immediately struck with the treatment. To a large extent doubt and confusion have been eliminated and the reader is instructed in a clear, straightforward manner what to do and how to do it, in so far as generalizing can be made applicable to a class of diseases which even when they pursue a typical course, are difficult of treatment. Yet, after all, it is the treatment, how to cure the patient, which the

general practitioner and the student desire most and it is here, in this little book, that they will find a store-house full of information which, if judiciously employed, will cure their patients. JORDAN.

Lea's Series of Medical Epitomes. Edited by Victor C. Pedersen, M. D. **Dayton's Epitome of the Practice of Medicine.** A Manual for Students and Practitioners. By Hughes Dayton, M. D., Principal to the Class in Medicine, New York Hospital, Out-Patient Department; Clinical Assistant in Medicine, Vanderbilt Clinic, College of Physicians and Surgeons, Columbia University. In one 12mo volume of 324 pages. Cloth, \$1.00 net. Lea Brothers & Co., Publishers, Philadelphia and New York. 1905.

This volume is the 13th of this excellent series which we have reviewed. It would seem impossible to have compressed the whole of the Practice of Medicine within such a small compass but, with the exception of throat and nervous diseases, which have been described in separate volumes, this has been done with admirable sense of proportion and of the essential. The book is well adapted for the medical student and for hasty reference by the busy practitioner of medicine. Under each disease the following subjects are considered:—definition, etiology, pathology, symptoms, complications, diagnosis, prognosis, and treatment. WINSLOW.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR AUG., 1905.

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Adams	0	0	1	0	2	0	6	0
Asotin	0	0	0	0	0	0	3	0
Benton	0	0	0	0	0	0	8	3
Chehalis	0	0	0	0	2	0	7	0
Chelan	0	0	0	0	0	0	6	0
Clark	0	0	0	0	0	0	4	0
Columbia	0	0	0	0	0	0	2	0
Douglas	0	0	0	0	2	0	3	0
Franklin	0	0	0	0	0	0	5	0
Garfield	0	0	0	0	0	0	16	1
Jefferson	0	0	1	0	0	0	5	1
King	0	0	1	0	1	0	8	1
Kitsap	0	0	0	0	0	0	2	0
Kittitas	0	0	1	0	2	0	3	0
Klickitat	0	0	0	0	0	0	11	0
Lewis	0	0	0	0	0	0	8	0
Lincoln	0	0	0	0	2	1	11	0
Okanogan	0	0	0	0	0	0	1	0
Pierce	0	0	3	0	6	2	0	0
San Juan	0	0	0	0	0	0	2	0
Skagit	1	0	0	0	0	0	1	0
Snohomish	0	0	0	0	0	0	2	0
Spokane	0	0	0	0	1	0	7	0
Stevens	0	0	0	0	1	0	1	0
Thurston	0	0	0	0	0	0	4	0
Walla Walla	0	0	0	0	0	0	85	2
Whatcom	0	0	4	0	0	0	3	0
Whitman	0	0	1	0	1	0	17	0
Yakima	0	0	0	0	0	0	66	3
Bellingham (city)	1	0	0	0	0	0	4	4
Seattle (city)	0	0	18	0	4	1	107	7
Spokane	1	0	3	0	4	0	40	2
Tacoma	0	0	6	0	15	1	21	0
Total	3	0	39	0	43	5	469	20
August, 1904	10	1	35	0	88	7	152	12
Total 1905	70	3	517	11	545	49	674	52
Total same period 1904 ...	270	7	827	36	769	104	425	75

ELMER E. HEG, Secretary.

NORTHWEST MEDICINE

November, 1905

ORIGINAL CONTRIBUTIONS

ARTERIOSCLEROSIS—HISTORY, ETIOLOGY AND PATHOLOGY.*

By W. A. SHANNON, M. D.,
SEATTLE, WASH.

Since arteriosclerosis has been recognized as a general disease of the vascular system, a great amount of study has been devoted to it, but there still remains much diversity of opinion regarding it. During the past few years, however, great improvement has been made in the methods of clinical investigation of this disease, and at the present time, more attention is given by physicians to its early recognition than ever before. Its effects are so injurious and far-reaching, while its treatment is so eminently unsatisfactory, that it is most important that every effort should be directed toward a better understanding of it.

Arteriosclerosis is now known to be a chronic inflammatory and degenerative disease of the vascular system, involving the arteries, producing thickening and hardening of the walls of the vessels, due to fibrous overgrowth, especially of the intima of the vessels.

Thoma recognizes two forms of the disease, nodular and diffuse. The nodular form is the result of primary changes in the media, and is found in those regions where the pulse wave is high and strong. The diffuse is the most important form, and in it the lesions are widely distributed, embracing all the arteries of the body; in this form the subjects are usually in the prime of life.

In a general way, it may be said of this disease, that there is an increased resistance to the circulation in the peripheral vessels, and a loss of elasticity and power of contraction in their walls. This leads to their dilatation and a slowing of the

*Read before the Washington State Medical Association, Tacoma, Wash., September 27-29, 1905.

blood stream, a new growth of connective tissue in the intima is formed, which reduces the calibre of the lumen of the vessel. This connective tissue formation is therefore compensatory. This compensation is sooner or later followed by more pronounced degenerative changes. On account of the increased arterial tension and peripheral resistance, extra work is thrown upon the heart, resulting in hypertrophy of the left ventricle and displacement of the apex beat downward and to the left.

Arteriosclerosis is very common in this country, and seems to be on the increase, especially on the Pacific Coast. It is a disease of middle life and old age but, as most old men have hard, thickened and palpable arteries, it may be concluded that this disease is more or less physiologic, in persons of advanced life. Men are more frequently affected than women. Edgren's statistics give 21 per cent. in women and 79 per cent. in men. It develops later in life in women than men. Physiologically, it may be said to be a disease of old men; pathologically it is a disease of old young men. In this article, I refer particularly to the pathologic or premature form of the disease, rather than the senile. "A man is as old as his arteries," is a trite saying, because a man may be young in years, but be the unfortunate possessor of old arteries. Barring accidents and acute diseases, it might be said that we would all die of arteriosclerosis.

Next to rheumatism, arteriosclerosis is a common factor in the various forms of heart disease, especially of the myocardium, and the many sudden deaths from so-called "heart failure," in apparently healthy persons, may be explained by the fact that often, before changes are discovered in the peripheral vessels, advanced changes have occurred in the coronary arteries, and in the aortic arch. Life insurance companies have come to realize the importance of this, and now impress upon their medical examiners the necessity of a careful examination of the arterial system, in all applicants for insurance.

Among the many factors mentioned in the causation of arteriosclerosis the most important are: old age, syphilis, alcoholism, gout, lead poisoning, infectious diseases such as typhoid, etc., mental and physical strain, over-eating, auto-intoxication and heredity. To my mind, the most important causes, in this country at least, are over-eating and the so-called "strenuous

life," and yet very little mention is made of them by the leading authorities on the subject. We Americans eat altogether too fast, and eat too much. There is more harm done in eating than in drinking too much. Over-eating and the toxemia resulting from defective elimination must ultimately produce degenerative changes in the walls of the vessels. If this disease is more common in this country than elsewhere, it is partly due to the high tension under which we live. The nervous strain, the keen competition, the lack of repose in our business and professional life, the fierce struggle for wealth and supremacy soon lead, through faulty metabolism, to increased arterial tension, and the various conditions associated with arteriosclerosis.

Heredity, I think, plays an important role in the causation of this disease, in the sense that a person may be endowed by nature with poor arterial tissue, which results in the early appearance of this disease, in persons in whom none of the common etiologic factors can be found.

One of the most common causes of arteriosclerosis, as given by all authorities on the subject, is the excessive use of alcohol, and while this, no doubt, does bear a close causative relation to the disease, still I am inclined to believe its importance has been overestimated and, that where alcohol is given as a cause of arterial degeneration, we will very often find other causes associated with it, such as syphilis or over-eating. Dr. Cabot recently made an investigation of 283 cases of chronic alcoholism of the worst form, and of the number only six per cent. showed any evidence of arteriosclerosis of the peripheral vessels, or of the heart.

Syphilis is given as one of the most frequent toxic causes of the disease, but how it attacks the vessels is still a matter of some doubt. Bredden speaks of the possibility of the long continued use of mercury being a factor in causation. He says mercury, being a metallic poison, is just as capable of producing arteriosclerosis, as syphilis or any other toxic agent.

Acute infectious diseases are given as occasional causes of arteriosclerosis, and among these rheumatism is the most important in this respect, and typhoid fever is second in importance. It seems to be understood that typhoid fever may produce such changes in the arterial system, as to subsequently render the vessels more susceptible to degenerate changes.

Lead, by acting directly on the vessel walls, may produce the disease. Tobacco is mentioned as having an injurious effect on the arteries, especially upon the coronary. The relation of arteriosclerosis to chronic nephritis is still an unsettled question, many holding that chronic interstitial nephritis is a primary cause of the disease, while others claim that the reverse is the case. There is no doubt but that they are frequently associated.

It is claimed by some that an excessive secretion of adrenalin, especially if there be defective action of the thyroid, may be sufficient to cause high blood pressure and subsequent atheroma.

ARTERIOSCLEROSIS—SYMPTOMATOLOGY AND COURSE.*

By P. V. VON PHUL, M. D.,
SEATTLE, WASH.

I wish to consider particularly only those parts most frequently and vitally affected, namely, the heart, the kidneys and the nervous system.

The general health of this class of patients is almost always below par, and evidence of the trouble is usually plain to the careful clinician, even early in the disease. As a rule, they are anemic, flabby and corpulent or poorly nourished; are often apathetic and tire easily. They complain of gastrointestinal troubles, shortness of breath on exertion, precordial pain and palpitation; slight febrile attacks may occur and occasionally there is a tendency to profuse sweating.

On palpating the superficial arteries, we find them more or less rigid and tortuous. The condition of the peripheral vessels is not always an exact indication of the extent of the sclerosis in the larger vessels and, on the other hand, marked arteriosclerosis of the arteries of the brain, kidneys and heart may be found post-mortem, and during life the peripheral vessels seem perfectly normal to the touch. Furthermore, the radial artery is one least prone to changes in the nodular form of arteriosclerosis and the femorals, brachials and temporals must also be palpated. The radial pulse is usually hard and of increasing tension, its wave rather high at first, but later quite

*Read before the Washington State Medical Association, Tacoma, Wash., September 27-29, 1905.

low. The pulse is often irregular, and may be very slow, even as slow as eight per minute; on the other hand, it may be normal. The blood pressure, as determined by the sphygmomanometer, in the large majority of cases is increased.

Of greatest importance is the examination of the heart, which sometimes is rendered difficult by emphysema of the lungs. It usually shows an hypertrophy of the left ventricle, with a displaced and more forcible apex beat. In the aged it may be atrophied. The first sound of the heart is usually prolonged. The second aortic sound is accentuated. The second pulmonary sound is also accentuated if the resistance to the circulation through the lungs is marked. When the sclerosis attacks the coronary arteries or aortic valves, we may have aortic murmurs, either systolic or diastolic, or mitral regurgitant murmurs when the dilatation is great enough to produce relative insufficiency, or murmurs due to disease of the myocardium. Such are the cases in which angina pectoris is most frequently seen, as are also sudden attacks of severe dyspnea without the pain of true angina. The subjective symptoms of these cases may be those of a severe heart lesion, or of so trifling a nature as to cause the patient little or no discomfort.

When the pancreatic arteries are affected, the resulting chronic pancreatitis may give rise to diabetes. Hoppe-Seyler states that the fatty stools usually seen in pancreatic diseases are absent in pancreatitis due to arteriosclerosis.

The renal symptoms present in a large number of cases are diuresis, seldom uremic convulsions, and rarely dropsy unless complications arise. The urine is pale, increased in quantity, of low specific gravity, frequently containing but a trace of albumin, often hyaline and sometimes granular casts.

The symptoms often present, showing the effects of arteriosclerosis upon the nervous system, are numerous, and of great importance is the effect of a strained or disordered nervous system upon the development of the disease. At first we may have simply vertigo, a tendency to sleep when engaged in prolonged mental work, headache, brainfag and loss of memory; later, perhaps, Adams-Stokes disease, obstinate insomnia in the aged and epileptiform attacks. Still later in the disease prolonged or sudden exertion may cause cerebral hemorrhage with paralysis, or perhaps death or apoplectiform attacks without permanent paralysis. Thrombosis, embolism or marked narrowing of the lumen of the arteries lead to softening and atrophy, causing dementia and a host of other psychical disturbances.

Arteriosclerotic changes affecting the arteries of the cord give rise to symptoms indicating chronic inflammation or degeneration. According to W. Hirsch, the anterior half of the cord is more frequently affected. The symptoms consist of gradually increasing weakness, and slight tremor of the head, arms and legs; the gross muscular power diminishes, the gait becomes draggy and difficult until finally, in severe cases, there is absolute inability to walk. Atrophy does not occur and the muscular tonus remains normal up to a late period of the disease.

The patellar reflex may be exaggerated at first, then sluggish, and may be entirely lost in the late stages. There is usually no sensory disturbance.

To the involvement of the peripheral nervous system probably belongs the affection described by Erb, Charcot and others, called *dysbasia intermittens angiosclerotica* or intermittent claudication. In this class belongs also Ortner's intermittent intestinal pain, and Landau's intermittent renal insufficiency, the former being due to arteriosclerosis of the mesenteric artery, the latter to that of the renal artery.

The course of arteriosclerosis is essentially a chronic one; it rarely kills, and individuals in whom the process is marked may attain a ripe old age. The Gotha insurance statistics mention 71-90 years as the period of death from arteriosclerosis. The complications, however, are manifold and of most serious importance. Sudden death may occur in those enjoying the best of health, from sudden cessation of heart action, due to embolism of the coronary artery, or rupture of the heart at a spot weakened by myocardial degeneration, or again to nothing more than sclerosis of the coronary arteries and myocardial degeneration; this at least is all that can be found post-mortem. Apoplexy may end all at once, or cause the paralyzed sufferer to be for years a burden to himself and all about him. The latter is true of senile dementia and the various forms of insanity arising. Years of agony may be endured from angina pectoris, or the disease may pursue a course similar to that of a severe heart lesion, with gradually increasing circulatory disturbances, or that of chronic interstitial nephritis or diabetes. A knowledge of all these facts is of little importance to our patients, and we benefit them most by our early recognition of the disease.

In conclusion, I wish to say that, in my belief, not one of the many causes given will give rise to arteriosclerosis in all cases, but I do believe that if alcohol, excessive smoking, the 20th century

life, over-eating, or mental worry cause pronounced increase in the pulse-rate and a rise of blood pressure that is more or less permanent, we should regard such individuals as candidates for arteriosclerosis. And if we find the digestion and general health impaired, the brain tiring easily, anemia, palpitation and dyspnea at times; and if on examination we also find a firm pulse, increased blood-pressure, a prolonged first heart sound, an accentuated second aortic sound, and if the ophthalmoscope reveals tortuosity and thickening of the retinal vessels, with perhaps white streaks along their margins, then we should institute the proper prophylaxis and treatment, for at this time only can we expect to cure, or even relieve the disease.

ARTERIOSCLEROSIS—COMPLICATIONS AND SEQUELAE.*

By W. B. McCREERY, M. D.,
TACOMA, WASH.

There is probably no disease in which the complications and sequelae are so varied, so generally serious in nature, and so often fatal in termination as in arteriosclerosis. This paper will mention some of the accidents which may happen, as the disease affects the renal, cardiac, cerebral or gastro-intestinal systems or the extremities.

Arteriosclerosis has a two-fold effect on the kidneys, atrophy of secreting cells and over growth of connective tissue. Gradually a slowly increasing autointoxication results. It may produce such varied disorders as cardiac hypertrophy, apoplexy, pneumonia, bronchitis, albuminuric retinitis, blindness or eczema. However, the most important sequelae of arteriosclerosis is chronic uremia. While its final symptoms—coma, convulsions, palsies and Cheyne-Stokes breathing—are those of acute uremia, yet it lacks the stormy onset and is insidious in development. Apathy, somnolence, headache—often like migraine—anorexia, nausea and vomiting may be symptoms of chronic uremia. These symptoms may occur singly, and it is characteristic that they are persistent and resistant to treatment.

Among the cardiac disorders which may arise as sequelae of arteriosclerosis may be mentioned hypertrophy, dilatation with relative valvular insufficiency, fatty and fibroid degeneration of the myocardium, aneurism and rupture of the heart and angina pectoris.

*Read before the Washington State Medical Association, Tacoma, Wash., September 27-29, 1905.

The heart in arteriosclerosis is generally hypertrophied. But stiffened and narrowed arteries and indurated kidneys produce a slowly mounting blood pressure, which at last causes the heart to pass the limit of compensatory hypertrophy. Gradually the degenerated myocardium yields, the valvular orifices dilate, and breathlessness, edema, scanty urine, pulmonary congestion and a quickened and uneven pulse, symptoms of cardiac incompetence, appear.

Chronic degeneration of the heart muscle is another factor in the production of dilatation. Overwork, vitiated blood and insufficient blood supply, due to partial or gradual occlusion of sclerotic coronary arteries, are all powerful causes of fatty and fibroid degeneration of the heart muscle. Fatty may be followed by fibroid degeneration. It is also a common cause of rupture of the heart. Fibroid degeneration always precedes aneurism of the heart. In sudden occlusion of one of the main branches of the coronary arteries by embolism or thrombosis, infarction with acute necrosis results, and rupture of the heart may follow.

The cause of angina pectoris is still controverted. Babcock states that lesions such as sclerosis or atheroma at the orifice of or along the course of coronary arteries, which interfere with the blood supply of one or both of the main trunks, produce attacks of angina pectoris. The narrow coronary arteries, though able to supply the heart under average conditions, cannot convey enough blood to meet the demands of extra work or excitement. Anemia of the heart results and irritation of the heart ganglia causes the awful agony of angina pectoris.

In the nervous system, the all important sequela is apoplexy. The hypertrophied heart drives the blood column through rigid arteries, under high pressure, and its full force falls on the terminal arteries arising from the circle of Willis. Aneurismal dilatation, often at the site of atheromatous degeneration, may precede the bursting of the blood vessels. Occasionally the blood vessels give way in the early stage of degeneration before sclerosis has taken place. Arteriosclerosis also predisposes to embolism and thrombosis of cerebral vessels.

Of great interest are the less pronounced nervous complications and sequelae of arteriosclerosis. These may arise from insufficient blood supply, or possible spasm of arteries and many of them are often considered functional in character. Osler mentions transient hemi—and monoplegia, aphasia and vertigo. Other symptoms are insomnia, impairment of memory, headache, increas-

ing weakness, irritability, epistaxis, frequently recurring and difficult to check, and various forms of senile dementia. Epilepsy, developing after middle age, may be due to arteriosclerosis, and, according to Stengel, neurasthenia, more commonly than generally supposed, is cardio-vascular in origin.

Gould says, "The importance of abdominal symptoms in arteriosclerosis is very great and very insufficiently recognized." Corpulent persons of sedentary habits, who are heavy eaters are prone to development of sclerosis of splenic, hepatic and superior mesenteric arteries. According to Bierrieng, the symptoms of arteriosclerosis, appearing in the gastric field, are anorexia, hypochlorhydria, delayed proteid digestion, mucous and occasionally hemorrhagic vomiting, and gastralgia. In the intestinal field he mentions enteralgia, constipation and meteorism.

In the extremities, senile gangrene is one of the manifestations of arteriosclerosis. It affects principally the distal arteries, as radials, ulnars or tibials. Intermittent claudication or lameness of limbs is caused by inability of sclerotic vessels to meet the demand of extra muscular effort. Erb states that arteriosclerosis of the extremities is responsible for various disorders of sensation and motion and for vaso-motor and trophic disorders. He mentions paresthesia, formication and pain, cramps and rigidity, coldness, pallor, cyanosis and circumscribed gangrene.

The foregoing is but a brief and imperfect resume of some of the complications and sequelae of arteriosclerosis. It is certain that not a few of the disabilities of old age and many terminal affections come through this portal. And it is clear that a disease, whose pathology has so many varied and disastrous manifestations, should merit a larger share of our attention than it has received in the past.

PROGNOSIS IN BRIGHT'S DISEASE.*

By L. R. MARKLEY, M. D.

BELLINGHAM, WASH.

In reading a paper upon the above subject, I have intentionally refrained from entering into a description of the different pathologic conditions of the kidneys as found in nephritis. It is as true today as when Flint wrote the following paragraph in his great work on practice, in 1881. He says: "It is not easy to make a convenient and correct classification of the different forms of

*Read before the Washington State Medical Association, Tacoma, Wash., September 27-29, 1905.

chronic Bright's disease. In different cases of this disease, the kidneys present a great variety of morbid appearances as regards size, color, character of the surface, etc. Kidneys affected with chronic Bright's disease may be small, of normal size, or enlarged; they may be red, yellow, white, or mottled; their surface may be smooth or granular; waxy degeneration may exist in some and not in other cases."

Flint was a great favorite twenty or more years ago; it is surprising to note how closely his minute descriptions of the disease, its course, prognosis, treatment and diet, correspond to the advanced thought of today.

It has been the belief of the laity and the majority of the profession in general practice for the past twenty years, that to be told one was suffering with chronic Bright's disease, meant an early fatality; even the acute form was considered very fatal. To enter my feeble protest against this almost universal belief, is the object of this paper.

Those of us who have been in active practice for some time can recall patients who were informed they had albumin in their urine, and that this meant Bright's disease. The patient would turn pale and tremble with fear; he would leave the office crushed in spirit and without hope. That was and still is all wrong, it is cruel; and I hold it is our duty to teach the public that Bright's disease is not the immediately fatal disease that we once thought it was.

Encourage them with the fact that in the majority of cases, if seen early, life is often prolonged for many years of usefulness and comparative comfort. I sometimes think it would be better not to let the patient know he has Bright's disease. He may ask us to inform him of his actual condition, saying he is not afraid to hear the worst, but the chances are that he will be considerably disturbed. The friends should be informed of our diagnosis and probable prognosis. If the patient is informed that he has nephritis, inflammation, or congestion of the kidneys, it is sufficient. Bright's disease is a term that is too well understood by the laity for their own good; they see it before them constantly in the daily press which does not help matters. The patent medicine fakirs know this only too well, and are reaping a rich harvest in consequence.

Up to a few years ago we depended almost entirely upon the simple test of heat and nitric acid, now we depend a great deal upon the finding of casts in the urine before giving our diagnosis

and prognosis. We now know that the finding of a few casts does not signify what we thought it did ten years ago; in fact they may be quite numerous and yet the patient live comfortably for an indefinite time. I will briefly describe a few illustrative cases.

Eight years ago I had a gentleman under my care whose kidneys appeared to be severely involved, he passed considerable albumin, was anemic, lost in weight, greatly discouraged, heart action good. He was quite ill for several months. He is alive today and in good health.

Another case I desire to call your attention to because it has to do with life insurance work.

A young man called to have me examine him for insurance; he was going to Alaska with the first rush and wanted some insurance before going. I had known him intimately for several years as a young man of good health and most exemplary habits. I was surprised to find quite a trace of albumin. I did not tell him what I had found but told him to call again in a couple of days. I made three or four tests with several days between each, finding albumin each time but in decreasing amounts until, in the last test, it had disappeared.

I passed him, he got his policy and I do not think he has been sick a day since that time. This was one of those peculiar cases of transient albuminuria. I certainly would have done him a great wrong to have rejected him, and yet it is our duty to protect the companies. We may have similar cases but with diabetic urine that I think should be eligible for insurance. I have known where a hearty dinner caused a temporary glycosuria. These are interesting questions when we consider that we have a delicate duty to perform for the company, and that a careless rejection means a great deal to the applicant.

Three years ago I was called to see a civil war veteran, who gave a history of having been severely wounded several times. He was dropsical, heart and arteries in bad condition, mind dull, urine scanty and very high colored, his breath had a strong urinous odor. I found his urine loaded with albumin and casts were present in large numbers. I told the family that I thought his days were numbered, but he surprised us all by living eighteen months.

At about the same time a very dear medical friend living at some distance, sent me some urine for examination. I thought it was for a patient and reported that the case was serious as the urine was loaded with albumin and casts. By return mail he reported that the urine was his, said he fully realized his condition; he is alive today and in much better health than he was at that time.

Two years ago I met a friend on the street, a young man of about 28. I noticed that he did not look well and inquired about his health, he replied that he had been having headaches of late. Sev-

eral days later I was called to see him because of this headache. I noticed that his face was puffy and requested a sample of his urine. I found it loaded with albumin, and I never saw as many casts in a drop of urine as his contained. The case assumed alarming symptoms during the next week, but he recovered nicely; no doubt this was a subacute case of nephritis. Will he have nephritis again some day? I think so.

Last spring I saw, in consultation, a severe case of pneumonia, in a young man of twenty-one. He did not do well, gradually drifting into so-called chronic pneumonia. The case looked like pneumonic plithisis, but numerous examinations failed to find the tubercle bacilli, though there were plenty of other microorganisms present. His lungs are still in a serious condition and I do not expect him to recover. About eight weeks after his lungs first became affected, his kidneys began to trouble him, apparently the right one as there was a little pain present. His urine became scanty and cherry red; there were small cushions under his eyes; found his urine loaded with albumin, red blood cells, and casts in large numbers. This condition continued for two months without any material change. Then the red cells began to disappear and pus cells became abundant, there were also a large number of microorganisms present. With the first kidney symptoms we suspected tuberculosis, but never found a single bacillus during his kidney troubles. The presence of casts, albumin, leucocytes and germs, continued for about a month without material change, when the urine gradually began to clear up. Two recent examinations failed to find any trouble with his kidneys. Of course we did not expect him to last long in his debilitated condition, and that his urine should have cleared up in that condition was a great surprise to us. His lungs are slowly but surely sapping his strength, and it is only a question of time when the end must come.

I consider this a rare and highly instructive case of infection of the kidneys from the lungs, with recovery of the kidneys under a severe systemic condition. From this case we can all gain inspiration, even the surgeon who might have thought of an operation.

Many of you have had such cases as I have cited, that held out but little hope, and yet they surprised you by making at least a partial recovery and living in comparative comfort for years. I feel that it is our duty to offer all the hope and encouragement we can to the patients suffering with kidney disease; it will cheer them and thus be a large factor in their mental and bodily comfort. In closing, I desire to say that I do not believe in the rigid diet that is so often prescribed for these patients. I allow a very liberal diet in all my cases of Bright's disease and diabetes, except during threatened coma.

CLINICAL REPORT.

A UNIQUE FRACTURE OF THE RADIUS.

By J. M. PEARSON, M. D.
Vancouver, B. C.

The accompanying skiagraph represents a rare form of fracture of the radius. The patient is a man, about 42 years, a stonecutter by trade. Previous and family history good. At the time of the accident he was occupied with the lowering of a stone, weighing half a ton, on to a wagon, by means of a derrick and chains. When the stone was within a foot of the floor of the wagon, he put his hand underneath to straighten a piece of wood upon which the stone was to rest. At



Oblique Fracture of Lower End of Radius.

that time, one of the pieces of the derrick chain, on the side from him, slipped out of the hole in the stone into which it had been driven, allowing that end to fall upon the wagon.

The other pin then drew out, on the side nearest to him, and his arm, together with the piece of wood which he held in his hand, was pushed away by the stone in the act of falling. The arm was not crushed, simply struck.

Half an hour later the swelling was very marked, and this together with some localized tenderness over what proved to be position of the break, drew my attention to the possibility of fracture. The skiagraph was made in the ordinary way, with eleven minutes exposure, at a distance of fifteen inches. It is to be noticed that the inner portion of the radius is completely detached, the line of fracture extending from about the center of the articular surface, two and a half inches up the bone, leaving the hand supported by the unbroken outer part of the radius and by the ulna. There was, therefore, no deformity, but the injury was accompanied by much swelling and localized tenderness. Five weeks after the accident the splints were removed, leaving the arm apparently as good as ever.

OBITUARY.

A. B. McKINNON, M. D.

Dr. A. B. McKinnon was born near Sydney, Nova Scotia, 58 years ago last August, and died in Bellingham, Wash., October 28, of diabetes, from which he had suffered for ten years.

He received his medical education in New York and practised in Winnipeg and other places in the Canadian Middle West. In 1890 he moved to Fairhaven, now a part of Bellingham, and was one of the few physicians to remain during the vicissitudes of the hard times of the early nineties. Consequently he had many friends and enjoyed a large practice. He is survived by a mother, four brothers and two sisters.

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NO. 11

TO THE PHYSICIANS OF THE NORTHWEST.

As a new year is approaching we wish to solicit subscriptions from the physicians of the Northwest who are not already on our list. Since NORTHWEST MEDICINE is the official organ of the Washington State Medical Association and will publish the papers and transactions of its meetings, it is thus especially incumbent on all the practitioners of this state to indicate their support of this journal by appearing on the subscription list.

It has been our policy in the past, and will be in the future, to confine our regular circulation to those members of the profession who are legitimate subscribers, and thus signify their desire to receive the journal. It is not our purpose to inflict ourselves on unwilling readers. We believe our publication fills a demand in this part of the land. We wish to conduct a journal on approved ethical plans, and to accomplish this end welcome suggestions from our subscribers and supporters who perceive reasons for criticism or improvement.

We take this occasion to remind our friends that it takes money to run a medical journal, and the least they can do for us is to pay their subscriptions when due, and thus save themselves the annoyance of being dunned for the same at a later date. We do not expect wealth will flow into our coffers from our subscription funds, but this money will help us pay our monthly bills, which is essential to existence. As a long time has elapsed since we have broached the subject of finances to our supporters, and we hope to refrain from doing so again for a goodly time in the future, we beg them to accept this as a sufficient suggestion to liquidate the delinquencies of the past, that we may start the coming year with a clean balance sheet.

SCOPOLAMIN-MORPHIN ANESTHESIA.

If the reports of the results of this method of anesthesia are confirmed from many sources, it should prove to be the ideal anesthetic for general use. Since its introduction in Europe in 1900, it has been used chiefly on the continent. Ries, of Chicago, reports his experience with it in over one hundred cases, in *Surgery, Gynecology and Obstetrics*, for October. His formula is, one-half grain morphin mixed in water with one-fiftieth grain scopolamin hydrobromate, which is divided into three doses, to be injected hypodermically. One dose is given two and one-half, one dose one and one-half, and one dose one-half hour before the time set for operation. After the first the patient becomes drowsy, sleeps soundly after the second and is insensible to pain after the third dose. In about one-half the cases prolonged operations are conducted without consciousness on part of the patient. If he is partly conscious, an extremely small amount of chloroform or ether is necessary. The advantages of this procedure are the absence of the usual worry and excitement preceding general anesthesia and the disagreeable sensations, with nausea and vomiting, following the operation, since the patient sleeps about five hours after the last injection.

Ries has not used it on children under twelve years, but has found it invaluable in old and decrepit patients, in whom as low as one-third of the mentioned dose is sufficient. He states there is no record of a human being having been killed by scopolamin and no case on record of a death after operation that could be charged to scopolamin-morphin anesthesia.

It has been used extensively in Europe for obstetrical cases. One-third of the given dose is administered every five or six hours and renders the labor practically painless. When necessary, obstetrical operations can be performed under its influence or by addition of a small amount of chloroform.

NEW COUNTY SOCIETIES.

Results have already followed the agitation, at the Tacoma meeting, for a closer and more thorough organization of the medical profession of Washington. A new county society has been organized in Clallam County, while Thurston and Mason have been united into the hyphenated Thurston-Mason Society, in accordance with the recently amended by-laws. In the meantime, the Judicial Committee is communicating with the physicians in counties without societies, for the purpose of getting them together

and preparing the ground for the work of an organizer when it shall be determined where he can accomplish the best results. May the good work go on until the brethren are all brought together into one common fold!

THE ABSENT REPORT OF THE TACOMA MEETING.

We regret the necessity of again failing to publish the transactions of the recent annual meeting of the Washington State Medical Association. Circumstances beyond our control have prevented our obtaining, from the official stenographer, either the report of the transactions or the discussions which should accompany the papers published in this issue. We trust these may be available for our next issue.

MEDICAL NOTES.

Clallam County Medical Association. On September 15, pursuant to a special call, Drs. F. S. Lewis, D. E. McGilvary and S. W. Hartt, of the city of Port Angeles, Wash., met in that city and organized a county medical society. Dr. Hartt was elected temporary chairman. For permanent officers for the ensuing year, Dr. Lewis was elected president, Mrs. Dr. Cook Seguin vice-president, Dr. McGilvary secretary and Dr. Hartt treasurer.

It was voted to name the organization the Clallam Medical Association and that meetings should be held on the second Saturday of each month, at the office of Dr. Hartt. The annual fees shall be \$3.

Thurston-Mason County Medical Society. Physicians representing these two counties met in Olympia November 2, and organized a Society with the name, Thurston-Mason County Medical Society. With only one or two exceptions, all the legally qualified physicians of these counties have expressed the intention of joining the society. The following officers were elected: President, N. J. Redpath, of Olympia; vice-president, C. H. Wells, of Shelton; secretary and treasurer, W. L. Bridgeford, of Olympia.

Physicians of Idaho. According to the report of Secretary Maxey, there are 243 physicians in Idaho, of whom 130 are on the roll of the State Society. Of this number 92 have paid dues and are therefore in good standing at present. Receipts for the year amounted to \$510.75, with expenditures of \$116.65, leaving a balance in treasury of \$394.10.

District Nursing in Seattle. The Charity Organization Society, of Seattle, has engaged a professional nurse who will devote her time to district nursing, attending to the needs of the sick poor who are unable, otherwise, to secure the services of a nurse. This is in line with the charitable work that is carried on in most large cities and will undoubtedly meet with a ready response from the needy. The services of the nurse can be secured for suitable cases, by members of the medical profession, on application to the secretary of the Charity Organization Society.

THE WASHINGTON EXAMINING BOARD AND ITS APPLICANTS FOR LICENSE DURING 1905.

The accompanying table contains the list of the Medical Colleges and averages attained by the applicants appearing before the Washington Examining Board for the current year. The number, 176, is less by six than that of last year. It would appear, however, that the standard of this year's class is somewhat higher than that of last since the percentage of failures was 18.9 against 25.3 per cent. for the previous year. At the same time the additions to the state's medical forces has been greater this year, the number being 142 successful applicants, against 135 last year. It required 63 medical schools, located in 24 states and countries, to educate this class, America, Europe and Asia participating, Africa being the only continent not sending representatives. That this is not exclusively a young man's country is shown by the fact that 39 old graduates applied, that is, graduates of ten or more years' standing. It also demonstrates that the chances of successfully passing the examination diminish with age, since 15 of these failed, comprising nearly half of the 34 unsuccessful candidates. There is no prospect of a dearth of medical forces in our state since they keep fully abreast of the growth of population.

MEDICAL COLLEGE.		PASSED.	FAILED.
California—			
California, Medical College.....	(1905) 75		(1902) 71 (4th trial)
College of Medicine, University of Southern California.....	(1901) 77 64-100; (1902) 84 78-100; (1904)		
College of Physicians and Surgeons of San Francisco.....	(1904) 77 9-10; (1904) 81; (1904) 90 2-10;		
Cooper Medical College.....	(1904) 84; (1905) 82 1-9; (1905)		
	84 1-9; (1905) 86.		
University of California.....	(1905) 83		
Canada—			
McGill University.....	(1899) 89		
Toronto University Medical Faculty.....	(1904) 82 35-100		
Trinity Medical College.....	(1900) 81		
Colorado—			
Colorado School of Medicine (State University).....	(1902) 89 4-5		
District of Columbia—			
Medical Department of the Columbian University.....	(1888) 91 2-5		
National University, Medical Department.....	(1903) 86 92-100; (1903) 77 75-100		

France— University of Paris.....	(1875) 75, (2nd trial); (1900) 76 4-9 (2nd trial)	(1875) 75, (2nd trial); (1900) 76 4-9 (2nd trial)
Germany— University of Leipzig.....	(1887) 78 20-100; (1892) 90	(1887) 78 20-100; (1892) 90
Illinois— Bennett College of Eclectic Medicine and Surgery.....	(1893) 78 6-9 (2nd trial); (1905) 84 3-9	(1893) 78 6-9 (2nd trial); (1905) 84 3-9
College of Physicians and Surgeons of Chicago.....	(1893) 81 14-100; (1902) 75, 76 57-100; (1903) 84 42-100; (1904) 75 35-100, 77 64-100, 77 71-100, 85; (1905) 78 7-9, 82	(1893) 81 14-100; (1902) 75, 76 57-100; (1903) 84 42-100; (1904) 75 35-100, 77 64-100, 77 71-100, 85; (1905) 78 7-9, 82
Illinois Medical College.....	(1895) 71 35-100* (1896) 76 42-100, (2nd trial); (1899) 76 6-9 (3rd trial); (1901) 90 57-100, 93; (1902) 83 4-9; (1903) 78 42-100; (1905) 81 2-3	(1895) 71 35-100* (1896) 76 42-100, (2nd trial); (1899) 76 6-9 (3rd trial); (1901) 90 57-100, 93; (1902) 83 4-9; (1903) 78 42-100; (1905) 81 2-3
Northwestern University Medical School.....	(1885) 87 5-9; (1890) 76 7-9 (2nd trial); (1895) 75 35-100; (1896) 76 64-100; (1899) 82 78-100, 90 35-100; (1902) 84 50-100; 87, 89 2-9; (1903) 77, 81 8-9, 84 6-9, 87 28-100; (1904) 89 7-9; (1905) 90 7-9	(1885) 87 5-9; (1890) 76 7-9 (2nd trial); (1895) 75 35-100; (1896) 76 64-100; (1899) 82 78-100, 90 35-100; (1902) 84 50-100; 87, 89 2-9; (1903) 77, 81 8-9, 84 6-9, 87 28-100; (1904) 89 7-9; (1905) 90 7-9
Rush Medical College.....	(1898) 84 7-9; (1903) 78 64-100; (1904) 87	(1898) 84 7-9; (1903) 78 64-100; (1904) 87
The Chicago Homeopathic Medical College.....	(1903) 76 8-9 (1893) 69 5-9* (3rd trial)	(1903) 76 8-9 (1893) 69 5-9* (3rd trial)
Indiana— Indiana Medical College.....	(1903) 76 8-9	(1903) 76 8-9
Physio-Medical College of Indiana.....	(1893) 69 5-9* (3rd trial)	(1893) 69 5-9* (3rd trial)
Iowa— Keokuk Medical College.....	(1905), 75 3-9	(1905), 75 3-9
Sioux City College of Medicine.....	(1901) 82 5-9; (1903) 82 35-100	(1901) 82 5-9; (1903) 82 35-100
State University of Iowa College of Medicine.....	(1903) 78 64-100	(1903) 78 64-100
Japan— Tokyo Medical College.....	(1896) 81 4-9	(1896) 81 4-9
Kentucky— Kentucky School of Medicine.....	(1903) 75 5-9 (2nd trial)	(1903) 75 5-9 (2nd trial)
		(1882) 39; (1897) 66; (1903) 73 57-100

Louisville Medical College.....		(1904) 58 17-100
University of Louisville.....		(1871) 54 7-9
Maryland—		
Baltimore Medical College.....	(1903) 75	
Medical Department of the Johns Hopkins University.....	(1902) 86 1-9	
University of Maryland School of Medicine.....		(1904) 64 71-100 (2nd trial), 66 (3rd trial)
The College of Physicians and Surgeons.....	(1896) 88 92-100	
Massachusetts—		
Harvard University Medical School.....	(1893) 79 28-100; (1902) 88 8-9; (1904) 86	
	(1905) 83	
Tufts College Medical School.....	(1902) 79 7-9	
Michigan—		
Detroit College of Medicine.....	(1895) 88 7-9; (1898) 76 2-3 (2nd trial)	
University of Michigan.....	(1891) 77 92-100; (1895) 86 71-100; (1896) 87 85-100; (1898) 90 50-100; (1902) 83; (1903) 82 64-100; (1904) 87 28-100, 92	(1898) 60 7-8 (1883) 66 42-100 (2nd trial); (1891) 65
Minnesota—		
Medical Department of Hamlin University.....	(1892) 80 7-9; (1897) 80 35-100, 82 29-100;	(1904) 73 5-9
The College of Medicine and Surgery of the Univ. of Minnesota.....	(1900) 76 42-100; (1902) 83 2-7; (1903) 80 1-9; (1904) 83 85-100, 90; (1905) 85 5-9	
Missouri—		
Barnes Medical College.....		(1905) 70 5-9, 71 5-9
Ensworth Medical College (St. Joseph Medical College).....	(1900) 77 35-100 (3rd trial)	(1904) 70 78-100
Kansas City Medical College.....	(1897) 82; (1900) 79 7-9 (2nd trial); (1903) 74 4-9, 77 42-100; (1905) 76, 78, 81 7-9	(1898) 65 50-100 (3rd trial), 72 (4th trial)
Medico-Chirurgical College.....	(1905) 75	
Medical Department of Washington University.....	(1902) 80 92-100	
St. Louis College of Physicians and Surgeons.....	(1895) 71 5-9*	(1904) 61 1-9
The Marion Sims Beaumont College of Medicine (Med. Dept. St. Louis University).....	(1899) 81 93-100; (1904) 78; (1905) 77 1-9	(1892) 57 14-100
Nebraska—		
Lincoln Medical College.....	(1902) 76 1-9 (2nd trial)	(1880) 59 14-100 (3rd trial)
Omaha Medical College.....	(1895) 78 4-9; (1897) 80 1-9	
The John A. Creighton Medical College.....	(1905) 80, 81	

New York— Bellevue Hospital Medical College..... College of Physicians and Surgeons (Med. Dept. Co'umbia Univ.) University of Buffalo	(1890) 70 5-9;* (1904) 87 (1902) 86 64-100 (1882) 77 2-9; (1900) 80 5-10	
Ohio— Eclectic Medical Institute..... Medical College of Ohio (Med. Dept. of Univ. of Cincinnati)..... The Cleveland College of Physicians and Surgeons (Med. Dept. of Ohio Wesleyan University)	(1900) 77 35-100 (3rd trial) (1893) 87 21-100; (1897) 75 5-9; (1900) 82 (1902) 83 42-100	(1895) 51 (1904) 72 7-9
Pennsylvania— Department of Medicine of the University of Pennsylvania..... Jefferson Medical College.....	(1902) 83 5-9; (1903) 82 21-100, 85 35-100, 90 35-100 (1902) 80 50-100; (1904) 75 8-9	
Scotland— University of Edinburgh	(1876) 73 28-100*; (1903) 83 64-100	
Tennessee— Chattanooga Medical College (Med. Dept. of Grant University). Medical Department of the University of Tennessee..... Vanderbilt University, Medical Department.....	 (1889) 69 50-100* (2nd trial) (1904) 89	(1904) 71 85-100 (2nd trial)
Vermont— University of Vermont, Medical Department.....	(1903) 88 50-100; (1904) 87 50-100 .	
Virginia— Medical College of Virginia..... University of Virginia, Medical Department.....	(1903) 85 64-100; (1905) 76 4-9 (1896) 87 16-100	
Total.....	142	34

*Old graduates, of 10 or more years standing, of whom an average of 10 per cent. is required for passing. Others must attain an average of 75 per cent.

REPORTS OF SOCIETY MEETINGS.

IDAHO STATE MEDICAL SOCIETY.

THE THIRTEENTH ANNUAL MEETING, AT BOISE, OCTOBER 5TH AND 6TH, 1905.

The Society convened in the Council Chambers of the City Hall and was called to order at 10.30, on the morning of the first day, by President R. L. Nourse, of Hailey.

The President announced that he would report on the needs of the Society in his address, to follow later.

The Secretary-Treasurer, Ed. E. Maxey, read his annual report for the past year, including those of the subordinate societies, South Idaho District Medical Society and North Idaho District Medical Society.

C. L. Sweet, Chairman of the Committee of Arrangements, reported the arrangements for this meeting and announced an elaborate banquet, at the Idanha Hotel, for the evening of the last day of the session.

On motion of J. M. Taylor, of Boise, it was voted to instruct the Committee on Publication to have printed the minutes of this meeting, with the report of the Secretary-Treasurer and various committees, and to mail a copy to each member and other interested physicians.

The President was instructed to appoint a committee of three to report on the advisability of the Society issuing a fee bill. He named the following: E. W. Kleinman, of Shoshone; J. L. Conant, Jr., of Genesee; C. L. Sweet, of Boise. He was also instructed to appoint a committee of three to report on the revision of the Constitution and By-Laws, with a view to closer organization of the profession of the state, which was composed of Ed. E. Maxey, of Boise, J. W. Gue and J. J. Hamilton, of Caldwell.

Hon. J. A. Pinney, Mayor of Boise, delivered an address of welcome which the society received with a vote of thanks.

President R. L. Nourse read his annual address which treated the subject of medical legislation and the needs of the profession of the state. It was referred to the Legislative Committee, consisting of L. P. McCalla, of Boise, B. W. Mather, of Mountain Home and J. J. Hamilton, of Caldwell.

AFTERNOON SESSION.

Report of a Case of Placenta Previa. This paper was read by T. O. Boyd, of Twin Falls, being the description of a case carried to term and saving both mother and child. E. W. Kleinman opened the discussion, speaking of the different methods of treating such cases, laying special stress on the passing of Cesarean section and hysterectomy. J. M. Taylor said it was gratifying to know of the possibility of carrying such a case to full term but doubted the advisability of doing so. C. L. Sweet thought it an error to attempt to carry the case to term and it was fortunate that the case was one of marginal attachment. D. C. Ray understood the reader to say that circumstances compelled him to carry the patient to term. He believed such cases should be delivered as soon as recognized and spoke of a case in his own practice where both mother and child were lost. J. J. Hamilton reported

two cases, in one saving both mother and child and in the other saving only the mother. In closing, Dr. Boyd thought it folly to delay delivery in these cases. In the reported case he frequently urged the danger of delay, but the family and patient forced him to wait.

General Paresis and its Early Diagnosis. R. L. Gillespie, of Portland, Ore., read this paper. In opening the discussion E. W. Kleinman reported a case seen recently in the Probate Court, in which the question of diagnosis was for a time troublesome. J. L. Stewart asked concerning the advisability of discharging from institutions cases of general paresis which had been made better or apparently cured by early treatment. On account of the liability to sudden relapse, often doing acts of violence, he thought the practice of discharging these cases at all was very questionable. Dr. Kleinman asked the author his opinion as to the relation of these early cases of general paresis to life insurance, that is, the effect upon the risk. Dr. Maxey emphasized the importance of diagnosing these cases early for it is only in the early or prodromal stage that treatment can be expected to be of any use. Dr. Nourse expressed his pleasure in hearing the paper and cited a case occurring in his own practice which he had been able to watch from its beginning to death. Dr. Gue took particular notice of the statement that some cases, in the early stages, make apparent recovery. These cases are probably specific.

In closing the discussion, Dr. Gillespie said, in reply to Dr. Stewart's query, that in his paper he was referring more to the prodromal stage of the disease when confinement was rare. But even after confinement is necessary many of these cases have very rational remissions during which time an institution is hardly justified in refusing the request of friends for the patient's discharge. At the same time, in his opinion, the patient's friends should be warned of the probability of a return of the disease, evidenced often suddenly by some overt act on the part of the patient, but such relapse is nearly always preceded by a few days of warning easily recognized by the experienced observer. In regard to the relation of general paresis to life insurance, he thought that if it was possible to make the diagnosis of paresis the case was not insurable as the expectancy of life in these cases would not justify a company in taking them even for short term form of policy.

Hydatiform Mole, with Specimen and Report of a Case. M. Brundage, of Shelley, read this paper. Dr. Gue, in discussion, reported a similar case, with voluntary expulsion of the mole. No subsequent complications had developed in his case. H. W. Halverson, of Boise, also reported a similar case in which the mole was expelled voluntarily, without complications or payment of bill following. Dr. Brundage in closing stated that diagnosis had not been made in his case prior to delivery of the growth.

EVENING SESSION.

A resolution was introduced by Dr. Kleinman and adopted by the Society authorizing the secretaries of the district societies hereafter, when a member is elected to membership at or after the October meeting of the State Society, that the payment of the membership fee at

that time shall be construed as paying also the said member's dues for the fiscal year ending one year after the following 31st of December.

The secretary presented the applications for membership of V. R. Killen, of Heyburn; G. H. Coulthard, of Idaho Falls; D. C. Ray, of Malad City; J. C. Davies, of Boise, and Jessie K. Clarke, of Weiser, and on motion, section 2, of Article VII, of the By-Laws, was suspended and the doctors named were elected to full, active membership.

Report of a Case of Visceral Presentation was read by R. W. Kleinman, of Shoshone, in which the entire anterior abdominal wall was absent, also the external genitals, the intestines presenting in a mass at the os uteri.

In the discussion, Dr. Castle said he had never seen such a case and had no knowledge concerning the cause of such lack of development. He took no stock in the maternal impression theory. Dr. Hamilton said he about half believed in maternal impression and cited a case in support of his belief, but acknowledged that he was unable to explain why such things occurred. Dr. Gillespie cited a case of personal experience that made him a firm believer in paternal impression which aroused much merriment. Dr. Kleinman cited a case in which it was contended by the parents and friends that maternal impression was caused by a certain deformity in the child, but personally he could not believe in the theory. Dr. Castle thought that in fully 90 per cent. of all children born with deformity, the deformity was not anticipated.

Reciprocity. A paper with this title was read by J. W. Gue, of Caldwell. In opening the discussion Dr. Kleinman thought the time had arrived for the profession to take cognizance of this subject as, in his opinion, the time was near when we would be compelled to come to it. Dr. Conant knew of no valid reason why we should reciprocate with any state and there were several reasons why we should not. Nearly every medical law allowed, at the time of its passage, everyone practising in the state to be licensed, and in this way many very inferior men might get in. Nearly all eastern and middle states have medical colleges and their graduates are almost invariably licensed by the boards of their individual states. A selfish reason would be the flooding of our state in one year with about 300 physicians who, judging by the number of inquiries received, would come here if the bars were down. Dr. Nourse said it was significant that only recently the Washington board had recommended and secured the repeal of their reciprocity clause. Dr. Hamilton suggested that we drop this talk about reciprocity and devote our extra energy to solving some method of handling the so-called irregulars. Dr. Gillespie said that this subject had been thoroughly discussed in the state of Oregon. He thought it very difficult to equalize the requirements of the different state boards. He considered it a bad plan for physicians to be moving about and suggested that reciprocity would make it still more difficult to keep the physicians at home. Dr. Castle said we had better let reciprocity alone and devote our time to teaching the members of the profession how to vote. Dr. Sweet said that he was still inter-

ested in this subject and for a long time believed that reciprocity was right, but more recently he had changed his mind. He doubted the advisability of trying to change the law at all, but if any change was made he thought it would be better to allow Boards to use their discretion in marking papers, giving older practitioners credit for experience and time out of school. Dr. Nourse emphasized the point that physicians should get more and more into politics and he urged the profession to stand out and assert their rights. We should demand of our legislature a decent medical law, and he was satisfied that we had sufficient power to get what we need if we would only insist upon it. Dr. Maxey raised the point of the constitutionality of a law providing for a limited reciprocity. He thought the courts would not sustain a reciprocity law unless it was general and applied to all states alike: might it not be classed as class legislation. Dr. Kleinman asked if a reciprocity law had ever been attacked in the eastern states on its constitutionality, and Dr. Nourse, in reply, said the eastern boards were given discretionary powers and through it accomplished reciprocity. Dr. Conant said that the present board recognized the fact that the medical law was not flexible enough to allow them to deal discretionarily with the older physicians applying for license. These men should be given credit for their long years of experience but as the law stands it was impossible to do so. Dr. Nourse brought up the subject of the case of the board vs. Raff, now pending in the Supreme Court, and suggested that the society take some action toward assisting in the prosecution. Dr. Cloucek thought we should get at the osteopaths and others out of the reach of the law as well as working within the law. Dr. Pittenger mentioned the presence of the Chinese doctors in our midst and emphasized our lack of organization and the disposition of the profession in general to shirk the responsibility of helping members of the board in prosecuting these violations. He thought there was danger of losing the present law if we tried to amend it, and advised letting it alone. Dr. Kleinman thought that this was just the reason why we should have reciprocity, it would increase in a great measure public sentiment in our favor.

Dr. Castle moved that the State Society assess each member of the Society five dollars to raise a fund to assist in the prosecution of cases now pending in the courts, and that the secretary be instructed to send out a circular letter to each member explaining why such assessment is made. Dr. Maxey seconded this motion, but urged the point that the profession were beginning at the wrong end of the dilemma. To get what we need and must have the profession must be thoroughly organized.

Dr. Gue raised the point order, and his contention was sustained, that the above motion was out of order until he had had an opportunity to close the discussion, which he did by reiterating his belief in the benefits to be had from reciprocity.

On motion of the secretary Dr. Castle's motion was laid upon the table for future consideration.

Dr. Maxey suggested that the Society adopt the motto, "Get To-

gether," and on motion, properly seconded, this was done by unanimous vote.

On motion of the Secretary the President was authorized to name one member from each county represented at this meeting to constitute the Committee on Nominations. The following members were named as members of this committee: J. L. Conant, Latah; H. W. Cloucheck, Cassia; E. W. Kleinman, Lincoln; H. A. Castle, Bannock; O. W. Hall, Ada; J. W. Gue, Canyon; M. Brundage, Bingham; B. W. Mather, Elmore; B. L. Steeves, Washington; D. C. Ray, Oneida.

SECOND DAY, MORNING SESSION.

The applications of Dr. H. C. Hubbard and Dr. W'm. B. Lyman, of Boise, for membership were read by the secretary, and on motion section 2, of Article VII, of the By-Laws, was suspended and both men were elected to membership, subject to their passing the recent examination for a state license.

Dr. Kleinman, chairman of the committee appointed to report on a state fee bill, reported that the committee recommended no action in the matter by the State Society and suggested leaving the matter entirely with the local societies. Report was accepted and committee discharged.

Symptoms and Signs of Gallstone Disease was the subject of a very interesting paper read by H. A. Castle, of Pocatello. Discussion was opened by Dr. Taylor, who said he could recall at least four cases living here in Boise, unoperated, in which he had diagnosed gallbladder disease. He thought title of paper might better be, Diagnosis of Gallbladder Disease, as gallbladder disease could often be diagnosed before stone could be definitely made out. All gallstone disease is preceded by a cholecystitis, following which the secretion becomes inspissated or otherwise gives rise to a foreign body effect, or mucus and bacteria may form a starting point for the formation of the stone. It is unfortunate that these early cases of gallbladder disease usually refuse an operation. Dr. Gue found it very difficult to get the consent of patient or family to operation, though he recognised surgical as the only rational treatment. Dr. Stewart said, in regard to the tender or painful spot posteriorly on a level with the 12th rib, that he thought the pain was oftener found higher up near spine or the scapula. He had noticed the same tenderness in every case of appendicitis seen during the past two years, since recognising the symptom. All gallbladder cases are never exactly well, and operation should be urged as a means of cure. Dr. Campbell thought that more attention should be given the diagnosis, especially diagnosis by exclusion of other troubles like pancreatitis, acute pyonephrosis, nervous or spasmodic contraction of mouth of common duct, diaphragmatic hernia, etc., which closely simulate gallbladder disease. He urged spending more time in the examination of these cases. Dr. Pittenger said he found it very difficult to palpate the gallbladder in many cases. Dr. Maxey emphasized the importance of diagnosing these cases early and urged more careful history taking and examination of our cases.

He cited a case in which he had seen a positive and accurate diagnosis made by an eminent surgeon where the patient complained only of a chronic indigestion and occasional dull and paroxysmal pains under the right shoulder blade. Operation the next day verified the diagnosis. Dr. Castle, in closing the discussion, said that he had purposely omitted the differential diagnosis in order that it might be brought out in the discussion, as it had been. He thought the laity should be educated to know that operation was the proper treatment for the gallbladder case just as it had been in appendicitis. In regard to the referred pain spoken of by Dr. Stewart, he said he had never heard before that it was a symptom of appendicitis. He had seen one case operated on in which no stone was found as diagnosed, but found a benign growth of the head of the pancreas.

Surgical Treatment of Nasal Obstructions was the title of a paper read by Adolph Blitz, of Boise.

SECOND DAY, AFTERNOON SESSION.

The application of R. S. Thompson, of Moscow, was read and on motion he was elected to full membership in this society, subject to his passing the recent examination for a state license.

The Committee on Nominations reported the following nominees as officers for the ensuing year, who were duly elected:

President, J. B. Morris, of Lewiston; Vice-President, E. W. Kleinman, of Shoshone; Secretary-Treasurer, Ed. E. Maxey, of Boise; Chairman of Com. on Arrangements, J. F. Hurlbut, of Lewiston; Chairman Com. on Legislation, B. L. Stevens, of Weiser; Chairman Com. on Nominations, J. L. Conant, Jr., of Genesee; Delegate to A. M. A., R. L. Nourse, of Hailey; Alternate Delegate to A. M. A., H. A. Castle, of Pocatello. Place of next annual meeting, Lewiston.

Dr. J. N. McCormack, of Bowling Green, Ky., Chairman of the Committee of Organization of the American Medical Association, then addressed the Society on the general subject of Medical Organization and the relations of the physicians to the laity and to each other, a very masterly, instructive and entertaining address. The discussion following was very free, many members taking part therein. At the conclusion of the discussion Dr. Stewart moved that the Secretary be authorized to secure the stenographic notes of Dr. McCormack's address, if possible to do so, and have a sufficient number printed for distribution among the physicians of the state. Seconded and carried unanimously.

Dr. Gue moved that a suitable vote of appreciative thanks be extended to Dr. McCormack for his excellent address. Motion seconded by many and carried by an enthusiastic standing vote. Society adjourned to meet at the banquet hall of the Idanha Hotel at 8:30 p. m.

SECOND DAY, EVENING SESSION.

After the banquet the Society met in a short executive session to wind up the business of the meeting.

On motion of Dr. Castle the Society, by an unanimous vote, authorized the Secretary to draft a proper commendatory letter and forward to Collier's Weekly, Ladies' Home Journal, and Everybody's Maga-

zine, expressing to each of them this Society's admiration for the stand taken by them in favor of pure drugs and the refusing of patent medicine advertisements.

B. L. Steeves, of Weiser, then read a paper, "Reminiscences," an amusing and interesting rendition of some of the doctor's early experiences in the practice of medicine in the rural districts.

Dr. Maxey moved, in recognition, in a weak way, of the valuable services rendered to this and other State Societies by his unselfish work along the lines of organization of the profession, that this Society elect Dr. McCormack to an honorary membership. Seconded by Dr. Sweet and carried unanimously. On motion of Dr. Gue, properly seconded, Dr. Gillespie's name was also presented for honorary membership, and he was elected by a unanimous vote.

The application for membership of Glenn E. Shawhan, who recently took the examination for the state license, was read and on motion he was elected to membership, conditional on his passing the Board.

On motion the Secretary was authorized to pay all expense bills incurred by this meeting.

Dr. Maxey, Chairman of the special committee appointed to report on revision of the Constitution and By-Laws, reported that the committee recommended and had prepared and would submit amendments to the Constitution and By-Laws, that would provide for the organization of as many district or county medical societies in the state as may at any time be thought most practical. This change was thought imperative by the committee. It was also recommended by this committee that the State Society appoint one or more organizers whose duty it shall be to visit the various parts of the state and help the physicians to get together. The proposed amendments to the Constitution and By-Laws were then read in full. The committee's report was accepted and the amendments to the Constitution and By-Laws were laid upon the table for one year, as required by our present laws.

On motion Dr. Maxey was authorized to do missionary work in the north end of the state at time most convenient to all concerned, but before the next annual meeting of the State Society, the Society agreeing to pay his necessary expenses.

The Secretary was authorized to purchase a suitable typewriter desk for use in his office.

No further business appearing, the Idaho State Medical Society adjourned to meet next year in Lewiston, on the 4th and 5th of October.

KING COUNTY MEDICAL SOCIETY.

President, J. H. Lyons, M. D.; Secretary, C. H. Thomson, M. D.

The first regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of Oct. 2, President Lyons being in the chair. Twenty-seven members and visitors were present.

PAPERS.

Treatment of Fractures of the Femur. H. E. Allen read this paper, recommending the use of the Hodgkin splint for the treatment of frac-

tures of femur. He related his favorable experience with it and detailed cases under its treatment. The paper was discussed by Drs. Carroll, Heg, Turner, McClure, Maxson, Guthrie, Harris, Calhoun, Hoffman, Read, Rininger and Thomas, all of whom thought favorably of the splint, though few had used it.

Surgical Treatment of Infection. J. E. Harris read this paper. (See page 305, October issue). This was discussed by Drs. Calhoun, Allen, Willis, Read, Maxson, Heg, and Lyons.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of Oct. 16. In the absence of President Lyons, Dr. G. H. Randall was elected to preside. Fifty-three members and visitors were present. M. Harrison, P. V. vonPhul, W. R. Tymmes and W. R. M. Kellogg were elected to membership. Applications for membership were received from J. D. Guthrie, C. E. Guthrie, Arthur Jordan and C. D. Wood, which were referred to the Committee on Ethics and Admission.

The report of the Auditing Committee showed the subscription and expenditures for the entertainment of the A. M. A. visitors and a balance of \$205.10 that was turned into the Society treasury. The Laboratory Committee gave a report for the past year, showing receipts of \$405, with a balance of \$74.75 which was deposited in the Society treasury. An appropriation of \$30 was passed for the maintenance of Dr. Maynard's widow.

PATHOLOGIC SPECIMEN.

Tubercular Meningitis. F. L. Horsfal presented a specimen of a brain of a child of six years, who was ill two weeks. She had been treated for typhoid fever when the doctor was called to see her. Cerebral symptoms were prominent at last. At the autopsy 150 cc. of fluid was found and at the base of the brain were numerous small tubercles. Convulsions had been an early symptom, and he questioned whether this was found in typhoid. N. D. Pontius remarked on the difficulty of diagnosis in such cases and said that no one should be criticized for the mistake of confusing them with typhoid.

C. W. Sharples thought all fevers of childhood are attended with convulsions. Mild cases of typhoid are often diagnosed as meningitis.

G. H. Randall mentioned a case of typhoid in a child, where the disease began with convulsions and the patient died in a week.

Ulcer of Stomach. W. R. M. Kellogg exhibited a stomach showing an extensive area of ulceration, from a man of 48 years who had previously been operated upon for gallstones. He secreted an enormous amount of bile. Two weeks later he vomited blood and died soon after.

Perforation of the Duodenum. Dr. Kellogg presented this specimen, from a man who died after a day of pain, having previously been in usual health. Autopsy revealed the perforation of the duodenum.

PAPER.

Arkansas Hot Springs. B. R. Paschall read the paper, relating his experience during a recent trip to Hot Springs with a patient. He

mentioned the large number of doctors who seek patients through drummers on trains and detailed their nefarious methods of securing victims. He described the deplorable condition of the U. S. free baths for indigent sufferers, where each patient follows his own inclination for treatment without medical direction. He gave something of the methods followed by reputable physicians and mentioned several men of ability and uprightness of character whose acquaintance he made.

PIERCE COUNTY MEDICAL SOCIETY.

President, G. S. Hicks, M. D.; Secretary, A. de Y. Green, M. D.

The first of the winter meetings of the Pierce County Medical Society was held at the Tacoma Hotel, Oct. 18, 1905. In the absence of the President, Dr. Hicks, the meeting was called to order by Vice-President Dr. L. L. Love.

Minutes of previous meeting accepted as read. Dr. Yocom, Chairman of the Milk Committee, reported that all the dairies had improved as well as could be expected, and that, without the aid of the bacteriologist and pathologist it would be impossible to report on milk contamination.

Dr. Quevli told of his experience as City Health Commissioner and the recent interview he has had with the councilmen. Dr. Quevli then offered the following resolution: "Resolved, that the Pierce County Medical Society fully indorses and commends the work of the health department in the improvement of the milk supply of the city; the course pursued and the methods employed, we heartily indorse. We especially recommend the employment of a city and county bacteriologist, without whose trained skill the health department would be virtually powerless, both in the matter of supervising the milk and water supply, and in the control of contagious diseases."

The resolution was seconded by Dr. Curren and accepted as read.

Dr. Case asked for a report from the Committee on Hospital Contract Work, but the committee was not prepared to report. Dr. Case then offered the following resolution:

"Resolved, That it is the sense of this society that it is a violation of the ethics of the medical profession and against the best interests of the Pierce County Medical Society to do lodge or other contract work; and that any member doing lodge or contract work after our next regular meeting be expelled from membership in this society. However, as an exception hereto, this resolution will not prohibit a member from doing so-called railway contract work."

This resolution was passed as read.

Dr. Hahn, of Seattle, read a most interesting paper on "Sauerbruch's Pneumatic Cabinet." A lengthy discussion followed the reading of Dr. Hahn's paper.

Those present were: Dr. Hahn of Seattle, Dr. Cox of Everett, Dr. Redpath of Olympia, Drs. Wheeler and Bingham of Puyallup, Dr. Story of Washington, D. C., Dr. Matlock of McNeil's Island, and Drs. Flynn, Libbey, Kinnear, Regli, Delaney, Garnett, Van Vechten, Charles McCreery, A. C. Stewart, Read, Wilson, Case, Spencer, McGeer Curren, Yocom, Annie Reynolds, Love, Rynning, E. M. Brown, Pratt, Nevlin and Green of Tacoma.

WHATCOM COUNTY MEDICAL SOCIETY.

President, F. J. Van Kirk, M. D.; Secretary, W. N. Hunt, M. D.

The Whatcom County Medical Society met in regular session, Sept. 11, at Odd Fellows Building, Bellingham, with Dr. F. J. Van Kirk, president, occupying the chair.

The Committee on Admission and Ethics reported favorably on the application of Dr. Irving J. Cross and he was duly elected to membership.

Applications for membership were received from Drs. S. J. Torney and G. F. Cook, of Bellingham, and Dr. J. W. Welch, of Ferndale, and were referred to the appropriate committee.

The paper of the evening was read by Dr. N. Whitney Wear, on the subject, *Sequelae of Typhoid Fever*. A general discussion followed, participated in by nearly all present.

The Society adjourned to meet Oct. 9th.

BOOK REVIEWS.

Edited by

Kenelm Winslow, M. D.

The National Standard Dispensatory. Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, including those recognized in the Pharmacopeias of the United States, Great Britain and Germany, with numerous references to other Foreign Pharmacopeias. In accordance with the United States Pharmacopeia, 8th decennial revision of 1905 by authorization of the Convention. Hy Hobart Amork Hare, B. Sc., M. D., Professor of Therapeutics in the Jefferson Medical College, Philadelphia, Member of the Committee of Revision of the U. S. P.; Charles Caspari, Jr., Ph. G., Phar. D., Professor of Pharmacy in the Maryland College of Pharmacy, Baltimore, Member of the Committee of Revision of the U. S. P.; and Henry H. Rusby, M. D., Professor of Botany and Materia Medica in the College of Pharmacy of the City of New York, Member of the Committee of Revision of the U. S. P. Imperial octavo, 1858 pages, 478 engravings. Cuoth, \$7.25, net; leather, \$8.00, net. Thumb-Index, 50 cents extra. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

If the review of this work were as proportionately comprehensive as the work itself, the whole of Northwest Medicine would scarce afford us sufficient space to contain it. The present volume takes the place of Stille and Marisch's National Dispensatory, which for 25 years was the standard work, and not only treats of the same matter found in the older dispensatory—bringing it to date—but contains much new material.

Thus all changes in the new U. S. P. are embodied in this work, as well as the essential preparations of the foreign pharmacopeias. In addition, will be found descriptions of any drug of any note which is used anywhere in the world, whether official or not, and the descriptions include all knowledge of every kind concerned with drugs—chemical, physical, botanic, pharmaceutic, physiologic, and therapeutic.

Descriptions and illustrations are given so that apothecaries may know the exact method of making any preparation—details which are not given in our pharmacopeia. There is an appendix containing all sorts of useful tables and knowledge; a general index of 90 pages; and a therapeutic index where, under the name of each disease, will be found a list of every known medicine which is prescribed for it. Everything under the heavens then, which is known concerning pharmacy, materia medica, and therapeutics, may be looked for in this volume of nearly 2,000 pages with confidence of finding the desired information concerning the same. The book will be an hourly necessity to the druggist, and a mine of information to the physician from which he may delve knowledge about drugs to be found nowhere else.

It appears from the National Standard Dispensatory that the new U. S. Pharmacopeia has stolen a march on the manufacturers of proprietary remedies by including an official preparation styled *Cataplasma Kaolini*, which is made of Fuller's earth, glycerin, etc., and which we immediately grasp is intended to replace such popular proprietary preparations as antiphlogistine, etc. Also a *Liquor Cresolic* Co. containing cresol and soap, and representing exactly Lysol, which should afford a much cheaper substitute for this valuable antiseptic.

WINSLOW.

Taylor on Sexual Disorders. A Practical Treatise on Sexual Disorders in the Male and Female. By Robert W. Taylor, A. M., M. D., Clinical Professor of Genito-Urinary and Venereal Diseases in the College of Physicians and Surgeons (Columbia University), New York. New (3d) edition, enlarged and thoroughly revised. In one octavo volume of 575 pages with 130 engravings and 16 colored plates. Cloth, \$3.00 net. Lea Brothers & Co., Philadelphia and New York, 1905.

A need of works of this character the demand for the third edition shows, as it also demonstrates an appreciation of the pioneer work undertaken by the author. Its practical value to the general practitioner is not great, as illustrations are principally of anomalies and the scientific investigations are employed only to demonstrate physical facts and not to advance practical knowledge.

On page 306, under treatment, in describing in detail the technic of massage of the prostate, the author neglects to state the condition of the bladder, whether it should be filled or empty, or whether the urethra should be cleansed of the contents expressed from the seminal vesicles or prostate after massage.

In the chapters dealing with impotency in the male, we find this condition classified under four sub-divisions, psychic, symptomatic, atonic and organic, 72 pages being devoted to the subject. Here the psychologic side of the sexual instinct in the male is recognized, as the sub-divisions demonstrate; whereas, in dealing with sterility in the female four pages only are given and sterility is explained by physical conditions alone, absolutely no recognition being given to the fact that the sexual instinct in the female has also a psychologic side and that sterility in her may occur from various mental conditions as in the male.

As a whole, the book demonstrates the extensive experience and individuality, rather than originality of the author; and its contents are such that one is impressed that the author could, if he so desired, make it a complete reference treatise, a thing much needed in our language, or by exercising more care by going into detail and arranging the contents systematically, with a view to the needs of the general practitioner, increase its value to this class of physicians. As it is, the book does not fulfill either of these conditions. Yet withal, every physician should read it, for by so doing he may be greatly benefitted. This is especially true of chapter 25, dealing with conjugal onanism and those on the anatomy and physiology of the genital organs

PETERKIN.

Practical Massage in Twenty Lessons—By Hartvig Nissen, Instructor and Lecturer in Massage and Gymnastics at Harvard University Summer School; Director of Physical Training, Brookline Public Schools; Former Acting Director of Physical Training, Boston Public Schools; Former Instructor of Physical Training at Johns Hopkins University and Wellesley College; Former director of the Swedish Health Institute, Washington, D. C., etc., etc. Author of "Swedish Movement and Massage Treatment," "A, B, C of Swedish Educational Gymnastics," "Rational Home Gymnastics," etc. With 46 original illustrations, 168 pages, 12mo. Price, extra cloth, \$1 net. F. A. Davis Company, publishers, 1914-16 Cherry street, Philadelphia.

This little book thoroughly carries out its mission as indicated by the word "practical" in its title. It is practical to the last page, dealing with the exact manner of executing the various movements on the part of the operator in what is commonly known as massage, and also active and passive movements on the part of the patient in the course of Swedish movement cure.

While there may be no cause for questioning the method of applying massage for some internal disorders, the desirability of doing so must rest with the physician, and I do not altogether approve of some of the remarks touching this matter. Under "appendicitis" the author states: "Appendicitis should not be treated by massage. But I have good reason to believe that persons who take judicious exercise will not be attacked by this malady; and further, I earnestly advise that circular kneading and friction of the abdomen be used for the first 'threatening' of appendicitis. Often we hear of persons who have been 'threatened' one or more times, and even been told that it was nothing more than indigestion, and some time later they have suddenly been taken violently ill, and a surgical operation had to be resorted to. If these cases had been treated by massage from the first day of the symptoms, I do not hesitate to say that the appendicitis would have been avoided."

It would be just as rational to send the patient with a note to the druggist asking him to give some medicine for a specified disease. By means of this work, however, it will be possible for the physician to prescribe the precise movement he wishes practised, or practice them himself, in any disease which is likely to be benefited by massage. The work for this reason and because of its generally prac-

tical character will be a valuable acquisition for any active practitioner of medicine.

WINSLOW.

A Manual of Diseases of the Nose and Throat. By Cornelius Godfrey Coakley, A. M., M. D., Professor of Laryngology in the University and Bellevue Hospital Medical College, New York City, etc., etc. Third Edition Revised and Enlarged. Illustrated with 118 Engravings and 5 Colored Plates. Cloth, \$2.75 net. Lea Brothers & Co., New York and Philadelphia, 1905.

One advantage of a little manual is that it can be frequently revised and brought up to date. This one on the nose and throat by Coakley, has just reached its third edition, giving it about six hundred pages and changing its date to 1905. The chapter on diseases of the accessory sinuses of the nose has been re-written, and a chapter devoted to the therapeutics of the nose and throat has been added, giving numerous formulæ so dear to the medical student and the beginner.

Examination and diagnosis are dwelt upon with painstaking minutiae. This is one of the best features of the book, for it is astonishing how physicians differ as to the diagnosis of diseases of the throat and nose.

I like, too, the general tone of the book. The author takes you into his confidence. He exposes all his little secrets and pet instruments hitherto guarded as his private stock in trade. The student will lay the book down with a satisfaction such as he would have at the close of a consultation with his preceptor. The illustrations are numerous and good and the type is large. On account of the revision there are a number of typographical errors, principally misfit references.

STILLSON.

Abbott's Bacteriology. The Principles of Bacteriology. A Practical Manual for Students and Physicians. By A. C. Abbott, M. D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene in the University of Pennsylvania. New (7th) Edition, enlarged and thoroughly revised. In one 12mo volume of 689 pages with 100 illustrations of which 24 are colored. Cloth, \$2.75 net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

This book is too well known to need an introduction. As would naturally be expected from the prior editions, we find that the author has presented in this last edition the most recent advances made in bacteriology, in a comprehensive and compact form.

The ground work and fundamental features so necessary to the beginner and student are retained, with the additional introduction of new technic and methods which have proven to be of value to the worker and which can be depended upon as reliable. As the author states in his preface that since the publication of his last edition, (the Sixth), the question which has received the most attention of the foremost workers in bacteriology is the one of infection and immunity. This subject he presents in a clear manner. Chapters on the bacteriologic study of water, air and milk, methods of testing disinfectants, and sterilization, while brief, add value to the work. The book remains

of the same high standard as former editions and will continue to be prized by students and the general practitioner for whom it is especially written.

LAZELLE.

Progressive Medicine, Vol. III, September, 1905. A quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M. D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia. Octavo, 298 pages, with 22 engravings. Per annum, in four cloth-bound volumes, \$9.00; in paper binding, \$6.00, carriage paid to any address. Lea Brothers & Co., Publishers, Philadelphia and New York.

In this issue are discussed, Diseases of the Thorax, by Prof. Wm. Ewart; Dermatology and Syphilis, by Gottheil; Diseases of the Nervous System by Spiller, and Obstetrics by Norris. Tuberculosis receives very extended notice and the recent work emphasizes the value of sugar, even above fats, in this disease. Examination of the heart by radioscopy and the new sphygmographic methods of Mackenzie are wonderful improvements in physical diagnosis.

One of the most suggestive and reasonable theories which has been accepted by many of our leading medical thinkers is considered, *i. e.* the fact that arterial tension is sustained by the secretions of the glands, as brought forward by Osborne. The thyroid, testis, thymus and ovary supply vaso-dilating bodies, while the suprarenal and pituitary secretions possess vaso-constricting effects on the vessels.

The essential factor then in disturbed tension is faulty secretion of these glands. In old age, for instance, with vascular hypertension there is a relative deficiency of the thyroid and a relative excess of the suprarenal secretion, and these faults can be partly remedied by giving thyroid extract or—and this explains the action of potassium iodide in arterio-sclerosis—the iodide may be prescribed to stimulate the action of the thyroid. The Mayors endorse this theory and point out the enormous vascular dilatation which often occurs after thyroidectomy and which they try to prevent by hindering absorption from the wound by cauterizing it with pure carbolic acid. Osborne regards old age, excess of food, alcohol and over-work, simply as contributory causes of arteriosclerosis.

Recent advances in our knowledge concerning brain tumor, syphilis, tabes, megasthenia gravis, parietic dementia and other nervous disorders are fully reviewed by Spiller, while Norris, in discussing the new work in obstetrics, touches largely on the progress made in our understanding of eclampsia and albuminuria of pregnancy. We have no more time nor space to devote to the great amount of valuable matter in this issue of *Progressive Medicine*, every paragraph of which contains information of worth and interest to the medical man who wishes to progress with his profession. We will only reiterate what we have said so many times before, that this publication is the best of its kind in the English language—and what more can be said.

WINSLOW.

Physician's Pocket Account Book. By J. J. Taylor, M. D. Price \$1. Published by The Medical Council, 4105 Walnut street, Philadelphia, Pa. This is a very convenient pocket account book, so arranged that the busy practitioner can easily keep a record of all his business for each day. The use of such a book will help to increase his income by aiding a commonly defective memory.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR SEPT., 1905

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Adams	0	0	1	0	2	0	6	0
Asotin	0	0	0	0	0	0	4	0
Chehalis	0	0	0	0	1	0	3	0
Chelan	4	0	0	0	1	0	2	0
Clark	0	0	0	0	0	0	4	0
Columbia	0	0	0	0	27	2	16	1
Douglas	0	0	0	0	0	0	12	1
Garfield	0	0	0	0	0	0	11	0
Jefferson	0	0	5	0	0	0	2	0
King	0	0	5	0	0	0	16	0
Kittitas	0	0	0	0	0	0	14	0
Klickitat	0	0	0	0	0	0	9	1
Lewis	0	0	0	0	0	0	8	0
Lincoln	0	0	2	0	2	0	14	1
Pacific	0	0	0	0	4	1	0	0
Pierce	0	0	0	0	1	0	2	0
Skagit	0	0	0	0	0	0	16	1
Snohomish	0	0	0	0	0	0	7	0
Spokane	0	0	0	0	0	0	15	0
Stevens	0	0	0	0	0	0	24	1
Thurston	0	0	0	0	0	0	10	1
Walla Walla	0	0	3	0	4	1	56	3
Whatcom	0	0	1	0	0	0	1	1
Whitman	0	0	0	0	2	0	8	0
Yakima	0	0	1	0	3	0	55	2
Bellingham (city)	6	0	5	1	0	0	4	1
Seattle (city)	0	0	12	0	1	0	70	11
Spokane (city)	0	0	4	0	5	1	66	8
Tacoma (city)	1	0	7	0	16	2	10	2
Totals	11	0	45	1	67	7	459	35
September, 1904	11	2	35	0	92	11	245	21
Totals 1905	81	3	562	12	612	56	1135	87
Same period 1904	281	9	862	36	861	115	670	96

No report has been received from the following counties for the month of September: Adams, Benton, Clallam, Ferry, Franklin, Island, San Juan.

ELMER E. HEG, Secretary.

NORTH WEST MEDICINE

December, 1905

ORIGINAL CONTRIBUTIONS

EXPERIENCE IN OBTAINING MEDICAL LEGISLATION.*

By F. H. LUCE, M. D.

DAVENPORT, WASH.

When our President asked me recently to make a short address before this meeting on the lines of "Our experience in obtaining medical legislation," I suggested that that experience in this state had not been sufficiently strenuous to render interesting anything that I might say in reference to the subject. Perhaps, after all, the very fact of its prosy nature should set us thinking and cause us to ask ourselves two questions: 1st. Have we adequate medical and health laws? and 2nd, Have we taken proper interest and given loyal assistance in the matter of their attainment? Too many of us are apt to take things as they come without making an effort to cure or at least render more tolerable untoward conditions confronting us in daily life.

It is not the purpose of this paper to dilate upon the deficiencies of our present laws but rather to point out the way to accomplish whatever seems desirable in perfecting the fabric. It is conceded that while the original laws were seemingly adequate and relieved largely the conditions prevailing at the time of their enactment, we have not shown the progressive spirit necessary to keep them abreast with modern conditions. I interpret this in its broad sense, as pertaining to all matters of legislation bearing upon our profession and which tend to elevate and dignify the position of the physician and protect the laity. For we perceive that the true physician has a duty to perform to the people at large which is not that of dollars and cents. "The laborer is worthy of his hire;" the physician is entitled to a respectable living but his peculiar position makes it obligatory upon him to conserve the public interest.

Undoubtedly, the early incentive to medical legislation in this country, had its origin in a desire to insist upon a certain reasonable medical proficiency as well as to compel an elevation of the

*Read before the Washington State Medical Association, Tacoma, Wash., Sept. 27-29, 1905.

moral standard in those who assumed to attach to their names the title of doctor of medicine.

Prior to 1889, the leading physicians of the Territory of Washington had felt that medical legislation was not only desirable but imperative to check the growth of, and protect the public from the effrontery of the charlatan who was being continually driven westward, where the newer development had not as yet rendered him amenable to legal restrictions. The impetus given to north-western immigration in the late eighties, and the consequent general advertising of this wonderful segment of the United States, brought large numbers of undesirable, self-styled doctors, whose presence was loudly proclaimed in flaring advertisements in the public press.

The transition from territory to statehood, in 1889, was opportune, and rendered it possible to inaugurate a comprehensive practice act which could be enforced, and could be amended to meet future requirements. A handful of physicians, without organization and with little experience in legislative matters, but loyal to their profession and its needs, decided that the plane of medical practice in this new country should be raised and to institute no half way measures but to put into effect, if possible, as good laws as were at that time in effect in the older states of the East.

On July 4, 1889, a representative body of the then Territory of Washington, met at Olympia and organized under the enabling act of congress, a Constitutional Convention. Six physicians, men of high standing, were members of that body, five of whom composed the Committee on State Medicine and Public Health, and it was to their efforts that Art. XX, of the Constitution of the state of Washington, appears as a unit of that great work and is of such scope as to enable the state to put into effect such medical and health laws as from time to time may seem desirable or necessary for the protection of the people.

On Nov. 11, 1889, Washington was admitted to the Union of states and the first session of the legislature convened to enact laws and carry into effect the provisions of the state constitution. The practice bill, as offered by the voluntary committee of physicians, several of whom had been members of the constitutional convention, became, in effect, the bill of the committee of the house of representatives on Medicine, Surgery and Hygiene. We were fortunate again in having as members of the first legislature, five physicians, who labored constantly for the success of the house bill.

Much greater opposition was encountered than could possibly have been expected, and it became necessary, from time to time, to call physicians from the several parts of the state to lend their personal aid. Many bills were introduced by the opposition to hamper or to render negative the efforts of our representatives, but through continued endeavor it was possible to gradually kill all opposition measures, and to finally pass a practice act.

The opposition were not content to allow their antagonism to cool at this point, but became, if anything, more concerned to keep the act off the statute book and the friends of the bill redoubled their efforts in its behalf. I will pass over the heart-burnings and recriminations of this period and simply say that good counsel prevailed to cool the hot heads and allow calm judgment to hold sway, following the veto of this bill. The bill was re-introduced in the house of representatives, changed slightly to render it new matter. Diligent and diplomatic work made it possible to finally pass this second bill through both houses, with but few dissenting votes, and, while it was not signed by the governor, it was allowed to become a law through constitutional provision.

The press, notably the city press of the state, became the greatest stumbling block in the effort to accomplish proper and needful medical legislation and it indeed seems strange that such opposition should arise, when two fundamental principles of newspaper publication are to disseminate knowledge and conserve the public interest. We must admit that financial success is a considerable factor in any business and that Mr. Smith is not conducting a newspaper, or Mr. Brown a dry goods establishment, for pure love of the business or from philanthropic motives.

However, the newspaper occupies a unique position in this progressive and enlightened country and is at the same time a moulder of public opinion and the public's servant. The newspaper and the physician, therefore, should work hand in hand for the public good and not from selfish interest.

The medical practice act became a law in April, 1890, and, so far as I am aware, no particular effort was made by its friends to amend it until 1899, when a bill was introduced intended to amend the act in the following particulars, viz.: Requiring the applicant for license to be twenty-one years of age; a graduate of some duly authorized medical college having at least a three years' graded course; allowing reciprocity with other states at the option of the state board of medical examiners; making county clerks' records prima facie evidence of violation of the act; and fixing a penalty for those practising under assumed names or under cover-

of some legal practitioner. This bill passed the house but, for political reasons, seemingly, was killed in the senate. This measure was re-introduced during the following session of the legislature, passed both houses, was vetoed by the governor, and then passed over the veto and became law in April, 1901.

A state board measure was introduced in the recent legislature, still further amending the practice act, but only in a minor degree, namely: Raising the requirements in that the applicant for license shall be a graduate of some duly authorized medical college, having at least a four years' graded course; annulling the reciprocity clause; and raising the license fee to \$25.00. These amendments were approved by the governor, Feb. 27, 1905. The amendments as stated constitute the total of the tinkering with the original act of fifteen years ago, but they were fathered by the friends of the act and therefore appear as wholesome advances, in keeping with the times.

Many attempts have been made by irregular bodies, through legislative action, to render ineffectual the provisions of the medical act. These attempts have taken divers forms but it is sufficient to say that so far they have not succeeded in their desires. That these attempts will continue to be a menace is as certain as the fact that the sun shines. Very little has been attempted along the lines of matters associate to the medical act. However, the last legislature passed two measures of importance and which received the approval of the governor, viz.: "An act to prohibit the advertising of treatment of venereal diseases and disorders, declaring the same a misdemeanor and prescribing a penalty therefor." This act is a step in the direction of public morals, although limited as to scope. It does not appear to prevent the advertisement of patent, so-called aphrodisiac remedies or allied remedies or appliances, although it is possible my interpretation of the act may be in error. However, it will have the effect of expelling from the columns of the public press a mass of filthy advertisements and prevent one of the evils which we, as physicians, are called upon to combat in the public interest.

The second measure receiving the governor's approval, is "An act prohibiting the sale of milk or any food product in which formaldehyde or other poisonous substances shall have been mixed as an ingredient, and declaring the same a felony."

It is to be regretted that the Pure Milk Bill, which I am advised was introduced at the instigation of the governor, should have failed to become a law. That the state board of health should exercise unlimited supervision over the milk industry of the state,

is a condition greatly to be desired. Every dairyman and every milk depot should be licensed by a local board, acting under the supervision of the state board of health, which should have the power to revoke licenses for violation of its conditions.

It is also to be regretted that the Vital Statistics Bill failed of passage, the principal feature of which was to require a certificate of death from the attending physician before a burial permit could issue. Owing to defects in the present law it is wholly impossible to compel reliable reports in the matter of vital statistics. The board of health laws demand an overhauling so as to give the board adequate power in all matters of health and sanitation and in the collection of vital statistics.

That further wholesome legislation, both state and national, is at least desirable is an unquestioned fact, but it is not the purpose of this paper to propose or enter into a discussion of these matters and I will simply mention several in a general way. All extravagant statements in advertisements of things medical should be forbidden. The sale of patent medicines should be prohibited unless an analysis or formula, specifying ingredients contained, is printed on label or package, and providing punishment for false analysis or failure to place the formula on the package. All patent medicines in which alcohol plays the prominent part should be made subject to the excise laws of the United States.

And now I arrive at what seems to me the essential point in this discourse. Desiring as we do that the profession, of which we are members, shall occupy a continually advancing plane intellectually and morally and render the higher public service, how are we to accomplish these purposes?

So far as medical legislative action has obtained in this state, all effort has been along individual lines. There has been absolutely no organized effort and what has been accomplished has been through the sacrifice, the incessant work and the devotion of a few individuals, and that the results should show a fairly satisfactory condition at this time is really to be wondered at. If we have succeeded thus far in accomplishing something worth while, how much more secure and sure would be the future, if a loyal organization was at work in every county, backing up the State Association. I sincerely trust that this Association will immediately take steps to assist in the formation of county societies where there are none, and to induce all regular local societies to affiliate with the State Association. This might be best accomplished by placing the matter in the hands of a properly authenticated committee or,

preferably, the judicial council. In this way can we accomplish much good and insure the future.

Our work is only begun. Time, patience, and much labor will be necessary to eventuate a code of laws adequate to the growing demand, and no action should be taken without first having the sanction and hearty support of the organized membership. The foundation of a house must be strong in order to insure a stable structure, and the local society must be the ground work upon which to rear a strong organization. The comity of feeling engendered through the closer personal relations of the society members will repay a thousand fold the slight loss of time and effort occasioned by the stated meetings. All matters of interest will be discussed in a friendly manner and steps will be gradually taken to ameliorate untoward conditions. Local dissensions and indifference to the general professional interest would be reduced to a minimum and the evils of commercialism in its broadest sense could be curtailed.

These are but a few of the local benefits to be derived through the organization of such societies, while as an organized whole we will acquire power to, from time to time, secure wholesome legislation and prevent any attempt to nullify what is properly the statute law.

THE STATUS OF MEDICINE IN THE CURE OF CHRONIC NEPHRITIS.*

By G. SHEARMAN PETERKIN, M. D.,
SEATTLE, WASH.

Cures are claimed surgically through

1. Decapsulation—Edebohls, G. M.
2. Lavage of the renal pelves—Ayres, Winfield.

Medicinally, through

1. Altering the proteid constituents of the blood and thus preventing nephrolisins, by a diet wholly vegetable, excepting butter and cream, the latter being limited to 500 gm. per diem.—Vaughn, Victor C.

2. Dechlorination, prohibiting the ingestion of salt, deduced from the observation that in the increased weight and edema of nephritis there was a corresponding increase in retention of the chlorides.—Widal, Lemierre, Javal.

3. Rest, at least one hour after meals and the interdiction of the erect position for a prolonged period. Treatment, the result of demonstrations that the function, in healthy kidneys,

*Read before the Washington State Medical Association, Tacoma, Wash., Sept. 27-29, 1905.

is interfered with by the erect position.—Lenoisser and Lemaïne.

4. Controlling the toxic elements in the blood and alimentary canal produced by bacteric action upon the intestinal contents and the animal economy through therapeutics and dietetics formulated upon advanced chemico-physiology and pathology.—Porter, Wm. H., New York.

5. Resting the kidneys by a system of dietetics based upon the excretory powers of the kidneys, giving those foods whose chemical constituents are easy and prohibiting those difficult of excretion.—von Noorden.

6. Constitutional treatment,—that is, medical, climatic and dietetic, in which dietetics play an inconspicuous part. Among its advocates, Osler's advice as to dietetics, in both parenchymatous and interstitial nephritis, takes up six lines. Delafield gives even less, stating that in interstitial nephritis, the quantity of sugar and starch taken should be restricted and the ingestion of fats encouraged; the use of wines, spirits and tobacco discontinued. While Hare prefaces his remarks and says that even at the risk of being considered iconoclastic, in chronic parenchymatous nephritis he would advise, in most cases, "a generous diet which does not strain the digestive and eliminative organs."

Looking at the dietetic lists for nephritis of others prominent in the profession, we find Senator prohibiting eggs, Ortel and others giving eggs; Bouchard condemning fish, Pel and Klempera advising fish; the French recommending an exclusive milk diet and von Noorden and Osler condemning it. Yet, all these authorities claim cures and by methods that are based upon divergent principles. That their claims are statements of facts, their position and character will not permit us to deny. But the question at once arises, would the patients cured by these various methods have recovered without treatment, or was their recovery due to treatment? In order to have a working hypothesis, we must admit the latter. Still, if this be true, how are these various forms of treatment reconciled with one another? By a little phrase, which every one of us has heard—and in all these articles it is easy to bring before the mind's eye—"In selected cases, you will obtain results." But, in the knowledge of man no one has yet arisen in the science of medicine and designated the means of selecting the cases.

Amid such a mass of authoritative and contradictory advice, it is not to be wondered at if the busy physician hopelessly asks, "What am I to do?" For he must realize the futility of trying all the methods upon his patients.

The object of this paper is to state briefly what I consider the practical method of procedure under existing conditions. Scientific treatment demands,

1. Removal of symptoms.
2. Removal of etiologic factors that produce the lesion.
3. Removal of pathologic lesions and bringing back, as near as possible, a normal state of the organs implicated. For convenience and the practical purpose of obtaining a working hypothesis, our knowledge of nephritis being so indefinite, we may as well employ for the classification of the etiology and pathology of chronic nephritis the same classification as Delafield gives for the pathology of albuminuria, with one addition. The classification is as follows:

1. Changes produced by inflammation of the walls of the capillaries.
2. Changes produced in the composition of the blood.
3. Changes in the blood pressure.
4. Non-inflammatory changes in the walls of the capillaries.
5. Infections that extend from the urethra and bladder to the kidneys.

With these premises, the principles of scientific treatment given, since we do not know whether chronic Bright's is a local disease with systemic manifestations or a systemic disease with local manifestations, can only be complied with, the disease being present, by putting the patient in the best possible general physical condition by the aid of that treatment,—be it medical, dietetic, climatic or all three combined—that will maintain his respiratory, circulatory and excretory organs in a state of physiologic health until, through conscientious employment of both clinical and laboratory methods, we can formulate a method of early diagnosis in this disease ere pathologic changes become permanent, and thus cure by prevention.

The clinical methods of making an early diagnosis, as through recognizing the over-action of the heart, with its emphasized second sound, high tense pulse, the indefinite nervous, gastric and respiratory phenomena as sleeplessness, indigestion and shortness of breath I shall not consider, for the recognition

and correct interpretation of such phenomena will always depend upon the individual physician's power and experience in interpreting subjective and objective symptoms.

I will speak briefly of the laboratory methods and devote myself to those that are to be employed in the examination of the blood and urine, for it is principally through the knowledge obtained from these fluids that advancement in the treatment of this disease will occur.

The methods of examining, first the urine, are

1. Chemically—quantitatively and qualitatively—by which method we recognize whether the organic or inorganic constituents of the urine are present in normal or pathologic proportions, or abnormal chemical elements are present, as albumin. This latter is of value only as a symptom, as significant of an abnormal condition in constructive or destructive metabolism, for by its presence the seat or cause of its existence is not indicated, nor the permanency or transitory character of the lesion. As yet our knowledge of the proteids of the urine, whether serum proteids, as serum-albumin and paraglobulin; compound proteids, as nucleo-albumin or proteolytic proteids, as albuminoses and peptones, have not proven of clinical value.

In indican in the urine, we have proof positive of intestinal fermentation and the formation of toxic elements that will over-tax the excretory functions of the kidneys. In uric acid in excess of the normal quantity, there is evidence of over-feeding, of imperfect oxidation of the proteid elements, or defective oxidation from an incomplete supply of oxygen to the system. By removal of conditions that make the presence of these elements possible, we have an example of one of the means of preventing nephritis, alleviating symptoms and possibly of curing the disease.

2. Microscopically,—a method which, by the examination of the sediment in the urine, we hope to locate the character and seat of the lesion. If this is the object sought and it be carried to its logical conclusion, we cannot stop at the examination of the sediments as found in the bladder alone, for the urine from a healthy will mix with that of a diseased kidney and the sediment, epithelial cells, etc., disintegrate and become modified by standing in the bladder that might itself be diseased. This is overcome by method

3. Where, by using the cystoscope, the ureters are catheter-

ized and the character of the urine and condition of each kidney ascertained, since the epithelial cells, etc. may be at once examined. Moreover, it is worthy of note that the use of this instrument has demonstrated that nephritis is never unilateral, from which we may deduce that it is a systemic condition rather than a local disease. Yet by its employment we may, through local applications of medicine, improve the condition of the kidneys by counter-irritation.

We now come to the fourth and last method,—cryoscopy. We know that microscopic and chemic examinations of the urine give no indication as to renal sufficiency or insufficiency, but practically the question is not so much the exact amount of urea, chlorides, etc. excreted, but whether the kidneys will be capable of continuing to excrete them in sufficient quantities to maintain health. This can be ascertained through cryoscopic examination, not alone of the urine, but in combination with the blood; and the functional activity of each kidney ascertained through ureteral catheterization, with the phloridzin test employed as a check to the cryoscopic. That such examinations have proved of value, the findings of Casper, Victor, Senator, Albannard, Bernard Korayni and others have demonstrated, though naturally such examinations are at present of more value to the surgeon than to the therapist.

In conclusion, I will state that the treatment of chronic Bright's disease should remain in the hands of those who are capable of maintaining the highest standard of general health for the patient. This is the general practitioner who sees the patient most frequently. Yet they, by more carefully examining into the cause of apparently minor complaints, and especially of the urine, should help eradicate this disease and, where possible, employ the most advanced methods of the laboratory; or, if lacking facilities or time, have the internist or urologist make an examination and return to them such a complete history that they may treat rationally, not empirically.

DISCUSSION.

ON PAPERS OF DRs. SHANNON, VON PHUL, MCCREERY, PETERKIN AND MARKLEY.

W. T. Williamson, Portland: In dealing with etiology, Dr. Shannon has concluded about as I would have done, as to the relative importance of various causes. We often overlook that hereditary influence is present in many families for generations. I think that the force and

effect of mental strain is not sufficiently recognized. Every person is given a certain capital to start in this world with and the more rapidly it is consumed, the more rapidly will his career terminate. I believe the most serious question about alcohol is that it is used at table. One takes it first in one form, eats a little and takes it in another form, thinking it gives an appetite. I believe the same amount of alcohol taken at another time would not have so bad an effect. As it stimulates the appetite, more food is taken into the system, the vessels become engorged, a burden is thrown on the kidneys and all the other organs are, likewise, overworked. Dr. von Phul said the anterior half of the cord was more likely to be affected than some others and, at the same time, mentioned that it was not a condition ever accompanying atrophy. It seems to me these two statements are not entirely reconcilable.

J. R. Brown, Tacoma: This subject has been very much neglected by the general practitioner. There is constantly going on, in the body, a tearing down and building up process. So long as the latter is stronger all is well, but there will come a time when the former becomes more rapid. The arteries are not the only organs suffering from arteriosclerosis but it affects the whole system. As has been said, we would all die from arteriosclerosis, if death were not due to accidental cause or complications, the arteries being unable to withstand the extra strain of over work, etc. It is difficult to give the real cause of this but I agree that heredity plays a great part. I take exception to Dr. Shannon's statement that overeating is more at fault than overdrinking. I also think it a fallacy that, if one drink much water, he will wash out impurities. The human body ordinarily can get along with three pints of water in twenty-four hours. A person who works hard has to perspire to keep his body cool. I wish to emphasize, guard against other diseases, accidents and treat the patient rather than symptoms and don't starve him.

H. Stillson, Seattle: In diagnosis of nephritis, as well as arteriosclerosis, I wish to put forth a plea for the use of the ophthalmoscope. The changes in arteriosclerosis are peculiar in that only in the fingers and eyes can the arteries and veins be seen clearly; in the eye they can be seen with the utmost minuteness. There is a distinct difference between the changes in arteriosclerosis and those of syphilis.

P. W. Willis, Seattle: Dr. Shannon speaks of the rapidity of life and mental worry causing arteriosclerosis. I think the most accurate example is a very busy man in office duties who does a great deal of thinking, who overdrinks and overeats and takes no physical exercise. I believe too much weight has been placed on the examination of the urine. When Dr. Stengel was here, I asked him what value he placed on urinary analysis and he replied none whatever. I believe there is more or less danger in catheterizing the ureters and the same object can be attained by the segregators. We should avoid everything that may damage the patient.

J. B. Eagleson, Seattle: I believe the mental effect has much to do with the prognosis. One duty of the physician should be to take much

care in giving an unfavorable prognosis in order to keep the patient in a cheerful frame of mind.

E. M. Brown, Tacoma: Dr. Shannon says the disease is on the increase on this coast. I do not question this. He can probably defend his argument better than I can challenge it. We observe it more because we look for it. I think a good many conditions are not properly classed under the head spoken of today.

Dr. Shannon, in closing: I am glad that you are all in such full accord with my views. I was pleased to hear Dr. Willis refer to the mental and physical strain as being a prominent factor in the disease. As regards heredity, referred to by Dr. Williamson, I believe it plays an important part. Men born with good arteries can go through a great deal of physical and mental worry and go through a long life. There is much difference of opinion regarding the relation of the kidneys to this disease. I believe overeating is the main cause of vascular degeneration rather than overdrinking. It and the strenuous life are the most important causes.

Dr. von Phul: I look upon atrophy as a practical application of the general disease, arteriosclerosis; they might be designated as the same disease called by two different names. Concerning atrophy of the anterior cord, I was misunderstood. I did not say that the cord was atrophied.

Dr. Peterkin: I think we all agree that, if we keep the patient up to his maximum condition, we will do the best possible for him. Dr. Willis said he believed it injurious to the patient to catheterize the ureters. I know of but few surgeons who, under proper arrangements, will not open a patient's abdomen without harm. If you do not practise this measure how are you to learn more about Bright's disease. I defend catheterization of the ureters.

Dr. Markley: I believe that overeating, indigestion, fermentation of undigested food and rapid eating are the great causes of Bright's disease. Treating these causes, improving the digestion, making the patient eat slowly, this is the whole key to the situation.

EARLY DIAGNOSIS OF TUBERCULOSIS OF LUNGS AND PLEURA.*

By C. QUEVLI, M. D.,

TACOMA, WASH.

I will endeavor to give a few ideas that may help you in the early diagnosis of this most dreadful of all the scourges that humanity is cursed with. When the bacillus can be demonstrated in the sputa it is easy for the physician with his microscope to make the diagnosis but phthisis should be diagnosed before the bacillus makes its appearance, because then it is often too late to effect a cure. When no distinct signs of tuberculosis are present you should not condemn the patient as tubercular although on first examina-

*Read before the Washington State Medical Association, Tacoma, Wash., September 27-29, 1905.

tion of sputa you find one or two bacilli, as they may be due to accidental inhalation. Only after repeated finding of the germs in such a case, should you give your decision. If possible a suspected case should always be treated as if a sure diagnosis of tuberculosis had been made, because when one considers the enormous importance of an early diagnosis, it is always best to err on the right side. It means life or death to the individual whether an early treatment is or is not started, when he really is tubercular. History may help you some to make a diagnosis in early stages. Direct transmission of the germ from mother to child is probably rare, although Baumgarten claims it is not, and that the bacilli lie latent in the child for a long time and later develop.

From 20 to 40 per cent. give a history of family tuberculosis, which I think is very small when you consider the chance for infection and the environments that usually put the health of the nearest relatives under par, thus making of them a fit soil for the bacilli to grow in. The rich do not often have this disease.

The appearance of the individual is often suggestive. Hippocrates describes them as people with clear delicate skin, fine silky hair, long eyelashes, bright eyes, tapering fingers and precocity of intellect. The chest is often narrow, clavical prominent at the acromion and the scapulae projecting like wings. There is another type—the short, squatty, unhealthy looking, with flat, broad face and muddy skin. These are people whose health is below par, and in whom tuberculosis is already existing or in whom the bacilli find favorable soil. You also frequently find tuberculosis in the most robust type.

Unfortunately for the victim, tuberculosis shows no sign until the decrease is so far advanced that you have an organic change with disturbed functions; or a lowered vitality often accompanied by fever, as a result of systematic poisoning; or you have such signs as cough or hemorrhage. Before this occurs the bacilli have long been spreading and burrowing in the lungs and around them have developed the minute tubercles. Often the first symptom is that of an infection with loss of weight and strength, pallor of the face when not feverish, slight fever in the afternoons, and often a quick pulse, out of proportion to the temperature. The appetite is poor or very capricious. The patient may have either diarrhea or constipation.

Now, where you find this condition with fever, it is usually due to one of three things: Either septic infections from a hid-

den abscess in the body, to typhoid fever, or tuberculosis. If it is due to an abscess, you will have leucocytosis, and a blood count with other things taken in consideration will settle that point. If it is due to typhoid fever, you will find the spleen enlarged more than you would in tuberculosis, the pulse rate lower and in a few days the Widal test will settle the matter. After having excluded typhoid and pus foci you will be safe in saying that the patient is tubercular, except in malarial districts, when he is very frequently told that he has malaria and treated as such, until many times all hope of an arrest or cure of the disease is gone. Malaria can be excluded by giving quinine and not finding the malarial parasite in the blood. In some individuals a rapid pulse without fever should make you look for further signs of tuberculosis.

Cough is most often one of the earliest symptoms. It is produced by the irritation and phlegm in the bronchial tubes and it is Nature's way of getting rid of something that should not be there. The cough depends much on the idiosyncrasy of the patient, as some with dullness and rales will not cough at all. You have early a thickening of the general connective tissues of the lungs and of the bronchi with their peribronchial tissues. This makes the expiratory sound a little louder and longer than normal. Everybody should be familiar with the normal expiratory sound, which is a gentle puff, and be able to discriminate between it and the slightly tubular and prolonged sound of early tuberculosis.

The inspiratory sound is often a little harsh or slightly depressed. You may also, as the result of the infiltration, have the respiratory sounds diminish or, as the Germans say, the *abgeschwachte athmen*.

You find at this early stage a slight increase in vocal fremitus, but as a rule there is no dullness or percussion. Do not pay much attention to dullness. You may also hear some rales and the patient is usually a little short-winded. As the disease progresses you notice dullness, more extensive tubular breathing, depression under the clavicle, lack of expansion on the affected side, etc., and it then is an easy matter to diagnose phthisis.

This condition of things you usually find starting in the apex of one of the lungs, because the inspired tubercular germ lodges oftener there, on account of the apex being the least compressed in the bellows-like movement of the lungs, and failing thus to dislodge the tubercular-laden dust or particles in expiration as read-

ily as in other parts of the lungs. It must not be forgotten that you normally have a little more dullness and a slight prolonged expiration over the right lung.

Hemorrhage is often one of the earlier symptoms and 90 per cent. are due to tuberculosis. You may at the time find no other sign and for a long time afterward the patient is apparently well. Even if he never develops phthisis, and no other cause for the bleeding can be found, I think it still could be due to a tubercular process which was partially or entirely washed away or destroyed by the blood.

We all know that blood that is normal or nearly so is destructive to the bacilli, especially outside the vessels. Where tuberculosis can not be found to cause hemorrhage you should look for other causes, such as thoracic aneurism, malignant intra-thoracic growths and swollen glands which may, by pressure, rupture the neighboring vessels. Hemoptysis, varicose condition of the veins at the root of the tongue, or to bleeding of a superficial vessel in bronchiectasis. The early signs of acute tubercular pneumonia are so nearly the same as in non-tubercular, that it is impossible at first to tell the difference, unless you have some history of tuberculosis or until the bacilli are found in the sputa.

Tuberculosis of the pleura has so nearly the same symptoms as simple pleurisy that you can only guess at the disease unless you have the history of tuberculosis. You all know how to diagnose pleurisy, and I will only add that if the chest cavity is so full of serum or pus as to put it on a stretch, it will transmit vibratory impulses, and some may, because they hear faint breathing sounds, make an error in diagnosis, forgetting other signs of pleurisy, as, namely, the bulging condition of the intercostal spaces, absence of vocal fremitus and abnormal situation of the heart. There may be a band of adhesion connecting the lung and the pleura, in which case you also would hear the breath sound. Where there is the least doubt use the exploring needle.

The X-ray I have used some, but only in trying to verify what I have already found by physical examination. The only thing of value about it, to one who is not an expert in using it, is that the diaphragm on the affected side is seen not to move so readily as on the healthy side.

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JAMES B. EAGLESON, M. D.
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DECEMBER, 1905.

NO. 12

THE WASHINGTON MEDICAL PRACTICE ACT SUSTAINED.

The Washington Supreme Court passed upon the medical practice law last month in considering the appeal of O. F. Lawson, of Seattle, convicted of practising without a license and sentenced to imprisonment and a fine. The court declared that the unamended sections of the medical act of 1890 and the three sections of that act as amended in 1901 are in full force and constitute the law. Lawson contended that, because the amended act had failed to set out in full the old law it changed, it was unconstitutional. This the supreme court declares was once accepted by the courts, but is no longer approved. All persons practising medicine within the state must, therefore, obtain a license. This decision, with the added strength it brings to the fight against illegal practitioners, should be appreciated by the profession. The knowledge that the law has again been upheld by the highest court of the state will do much to elevate the standard of medicine and the class of physicians in the state.

AGITATE FOR ORGANIZATION.

During this month it is customary for county medical societies to hold their annual banquets, which are made more or less occasions for outlining plans for future work, as well as reviewing past experiences. In view of the recent agitation in favor of more perfect organization of the profession in the poorly organized states of the Northwest, these would appear fitting opportunities for emphasizing the desirability of continued and persistent work along

these lines. These annual gatherings bring together the full membership of each society; personal relations are then of the warmest nature, and if frictions have hitherto existed, they are likely now to be lessened, so that the familiar slogan, "get together," can be most effectually exemplified. Being in harmony with their fellow society members, they should be in a position to do efficient work in securing the membership of other available material. If this aim be adopted at the outset of a new year and consistently followed, it will not be possible to repeat the unenviable report, at the next meeting of the Washington Association, that only a third of the physicians of the state are included in its membership, a record which neighboring states have paralleled. We believe there is too little intercourse between the different county societies. Their members come together in the annual association meeting, but, as a rule, do not meet again for a year. Interchange of courtesies should be established by means of papers read by members from other societies and visits on special occasions or to attend regular sessions. Whatever may be the means adopted, our plea is to keep out of beaten ruts and associate more with our fellows, having different interests and viewpoints than our own.

A. N. MARION, M. D.

Dr. Alfred N. Marion was born June 7, 1840, of French-Canadian parents, near Montreal, and died in Seattle, October 20, from chronic nephritis. His father was a farmer.

After receiving a common school education he attended McGill University, from which he received his medical degree. He went to Washington in 1861 and, having passed a satisfactory examination, was appointed assistant surgeon in the Union Army, serving during the war. At its close he settled in Baltimore and practised there till 1877, when he was appointed, by President Hayes, as agent at the Tulalip Indian reservation, in the State of Washington. He remained there till 1879, when he was appointed, by President Cleveland, as clerk of the United States Court, with headquarters at Walla Walla. In 1890 he moved to Seattle and formed a partnership with Dr. E. L. Smith. At the end of a year he established practice by himself which was continued till his last illness.

He always took an active interest in politics and, while at Walla Walla, was chairman of the territorial Democratic committee. Later he was a member of different Democratic state and county committees. He is survived by a widow and eight children.

REPORTS OF SOCIETY MEETINGS.

WASHINGTON STATE MEDICAL ASSOCIATION.

SIXTEENTH ANNUAL MEETING, HELD AT TACOMA, SEPTEMBER 27-28-29, 1905.

The meeting was called to order, at the Tacoma Hotel, on Wednesday morning, at 10 o'clock, by President J. R. Yocum.

Secretary Coe having failed to arrive, Dr. Bean was requested to act till his arrival.

G. S. Hicks, Chairman of the Committee of Arrangements, announced that the Pierce County Society would entertain the members and guests at a dinner, on Friday evening, at the Country Club. At the same time the ladies would be entertained at a twilight tea, at the country home of Dr. and Mrs. Chas. McCutcheon, at Steilacoom. He announced that all would be welcome at the hospitals of the city and that they were all put up at the Union Club.

The President announced that, in the discussion of papers, each speaker would be limited to five minutes. On the motion of Dr. Brown, the courtesy of the floor was extended to all visiting physicians in the discussion of papers.

The following papers were read:

Arteriosclerosis, History, Pathology and Etiology, by W. A. Shannon, of Seattle. (See page 327, November issue.)

Arteriosclerosis, Symptomatology and Clinical Course, by P. V. von Phul, of Seattle. (See page 330, November issue.)

Arteriosclerosis, Complications and Sequelae, by W. B. McCreery, of Tacoma. (See page 333, November issue.)

The Status of Medicine in the Cure of Chronic Nephritis, by G. S. Peterkin, of Seattle. (See page 368.)

Prognosis of Bright's Disease, by L. R. Markley, of Bellingham. (See page 335, November issue.)

These papers were discussed by W. T. Williamson, of Portland, J. R. Brown, of Tacoma; H. Stillson, of Seattle; P. W. Willis, of Seattle; J. B. Eagleson, of Seattle; E. M. Brown, of Tacoma, and the essayists. (See page 372.)

It was announced that Secretary Coe would not be present but had sent the minutes of the last meeting by R. L. Thomson who read them. After a few alterations and corrections were made, they were ordered approved and placed on file. Dr. Thomson was appointed permanent secretary of the meeting.

J. B. Eagleson read the Treasurer's report as follows:

Receipts.

Balance on hand, July 11, 1904.....	\$174.47
July 20, received from secretary.....	614.00
July 14, received from secretary.....	133.00
Interest on deposit in bank.....	2.33—\$924.44

Expenditures.

July 14, secretary's salary.....	\$100.00
Expressage on books.....	13.14
Paid A. H. Coe.....	20.50
Paid C. A. Smith, printing.....	168.05
Inland Printing Co.....	3.25
C. A. Smith, et al.....	44.70
K. Winslow and Shaw-Borden Co.....	24.50
A. H. Coe.....	23.00
G. S. Peterkin.....	50.00
Allen & Lamborn, printing	18.00
J. R. Yocom.....	26.75—\$491.89

Balance on hand.....\$433.05

On motion of Dr. Peterkin the report was referred to a committee of three to be audited. The President appointed H. W. Dewey, Tacoma; J. M. Semple, Spokane; W. Johnston, Colfax.

The President requested all members and visitors to register their names.

WEDNESDAY, AFTERNOON SESSION.

The President requested all members and visitors to register their names and receive badges.

A Committee on Nominations was elected as follows: C. A. Smith, Seattle; Wilson Johnston, Colfax; C. B. Genoway, Spokane; H. P. Howard, Everett; H. W. Dewery, Tacoma.

The following papers were read:

Early Diagnosis of Tubercular Disease of Tonsils, Pharynx and Larynx, by J. A. M. Hemmeon, of Seattle. In the absence of Dr. Hemmeon, the paper was read by Dr. Thomson.

Early Diagnosis of Tubercular Disease of Lungs and Pleura, by C. Quevli, of Tacoma. (See page 374.)

Early Diagnosis of Tubercular Disease of Bones and Joints, by P. W. Willis, of Seattle.

Early Diagnosis of Tubercular Disease of Peritoneum and Fallopian Tubes, by W. M. Karshner, of Puyallup.

Early Diagnosis of Tubercular Disease of the Urinary Tract and of the Male Genital Organs, by G. W. Hawley, of Seattle.

Acute Atypical Pulmonary Tuberculosis, by S. H. Johnson, of Bellingham.

Use of Tuberculin as a Diagnostic Agent, by W. R. M. Kellogg, of Seattle.

These papers were discussed by R. C. Coffey, of Portland; C. A. Smith, of Seattle; W. Johnston, of Colfax; F. L. Horsfall, of Seattle; J. Sutherland, of Spokane; Wm. House, of Portland; J. R. Brown, of Tacoma; F. S. Bourns, of Seattle; G. A. Libby, of Tacoma; W. T. Williamson, of Portland and the essayists.

J. A. Mahan, of Ellensburg, exhibited a case of **Raynaud's disease**, giving a description and history of the patient.

WEDNESDAY, EVENING SESSION.

The following papers were read:

Infantile Digestive Disorders, by G. B. McCulloch, of Seattle.

Clean Milk Question—Control of Milk in Cities, by C. V. Genoway, of Spokane.

The First Five Years of Childhood, by W. C. Hastings, of Seattle.

Report of the Committee on Clean Milk. Dr. Hicks stated that he had written to committees in different cities, in order to get reports from as many counties as possible. He had heard only from King and Pierce counties. Reports from these were read, respectively from K. Winslow and L. L. Love. It was voted to accept the reports and the committee be continued.

This Committee on Clean Milk is composed of the following: K. Winslow, J. B. Sweeney and G. B. McCulloch, of Seattle; G. S. Hicks and L. L. Love, of Tacoma; G. A. Gray and W. W. Potter, of Spokane; G. B. Wilson, of Pullman; H. B. Wells, of Hoquiam and L. R. Markley, of Bellingham.

These papers were discussed by G. S. Hicks, Tacoma; H. S. Martin and J. M. Semple, of Spokane; L. R. Markley, of Bellingham and the essayists.

Dr. Markley moved that these papers be published in pamphlet form and distributed where they would do the most good. The motion was carried.

E. M. Brown believed it would be better to leave this matter in the hands of a committee, with Dr. Nelson as chairman, to publish a circular with as much of the papers as considered advisable. Dr. Markley thought that, if the milkmen understood that these papers came from this Association, it would have more effect than coming from a small committee.

It was moved to amend the previous motion by referring the question to the Publication Committee with authority to publish them in pamphlet form if they thought it best. Dr. Hicks called on Dr. McCormack for his views. The latter thought better results would be obtained by referring the papers to a committee with instructions to abstract them, if thought best, and furnish the same to the newspapers by which means they would be copied and distributed all over the state. Dr. Essig doubted the authority of the Association to do this. Dr. Yocom read from the By-Laws where authority is given the Committee on Publication to publish and distribute the transactions. The motion was then put and carried.

The discussion of the papers was continued by Wilson Johnston.

A motion was introduced and carried that the President appoint a Committee on Revision of the Constitution and By-Laws to consist of seven. He appointed the following: F. H. Luce, Davenport; J. M. Semple and N. F. Essig, Spokane; C. A. Smith and C. W. Sharples, Seattle; G. S. Hicks and J. W. Bean, Tacoma.

THURSDAY, MORNING SESSION.

The following papers were read:

Significance of Symptoms in Upper Abdomen, by H. M. Read, of Seattle.

Significance of Abdominal Tenderness, by P. W. Willis, of Seattle.

Abdominal Pain due to Extra-Abdominal Disease, by J. B. McNerthney, of Tacoma.

Methods of Examination in Diseases of Stomach, by H. S. Martin, of Spokane.

Iodine Stain of Leguminous Starches in Feces as Index of Intestinal Digestion, by B. S. Paschal, of Seattle.

THURSDAY, AFTERNOON SESSION.

Frequency, Pathology, Symptomatology and Diagnosis of Chronic Gastric Ulcer, by A. A. Matthews, of Spokane. In the absence of Dr. Matthews this paper was read by Dr. Semple.

Delayed Transportation of Stomach Contents, Symptoms and Differentiation of Causes, by E. M. Ringer, of Seattle.

These papers were discussed by B. Hahn, of Seattle; F. G. Midford, of Tacoma; G. S. Hicks, of Tacoma; Wm. House, of Portland and the essayists.

The following group of papers was next read:

Diseases of Gallbladder and Ducts, with Reference to "Stomach Trouble," "Indigestion," and "Dyspepsia," by G. M. Horton, of Seattle.

Diagnosis of Gallstone Disease in its Early Stages, by C. W. Sharples, of Seattle.

Commonly Over-looked or Misleading Symptoms of Gallstone Diseases, by C. B. Ford, of Seattle.

Clinical History and Diagnosis of Stone in Gallbladder: In Cystic Duct: In Common Duct, by N. J. Redpath, of Olympia. In the absence of Dr. Redpath, his paper was read by Dr. Thomson.

Relations of Pancreatitis to Cholelithiasis, with Report of Case, by N. F. Essig, of Spokane.

These papers were discussed by E. E. Maxey, of Boise, Idaho; F. S. Horsfall and the essayists.

The following group of papers was next read:

Chronic and sub-acute Appendicitis as Cause of Disorders of Digestion, by J. B. Eagleson, of Seattle.

Appendicitis, Theories of Causation of Pain and Digestive Disturbances, by W. S. Durand, of Everett.

These papers were discussed by A. C. Smith, of Portland; E. M. Brown, H. M. Read, B. Hahn, P. W. Willis, W. Johnston and the essayists.

This was followed by a paper on **Life Insurance Examinations**, by G. W. Libby, of Spokane, which was discussed by H. W. Dewey, of Tacoma; L. M. Sims, of Kalama and Wilson Johnston.

THURSDAY, EVENING SESSION.

The President called for a report from the Committee on Revision of the Constitution and By-Laws. The majority report was read by Dr. Luce, favoring the adoption of a House of Delegates, and signed by F. H. Luce, J. M. Semple, G. S. Hicks and C. A. Smith. (See page 322, October issue.) The minority report was read by Dr. Essig, opposing the House of Delegates, and signed by J. W. Bean, N. F. Essig and C. W. Sharples. (See page 323, October issue.) Dr. Luce

explained the substance of the majority report and the arguments for its adoption. Dr. Essig followed with a similar explanation for the minority report.

Dr. McCutcheon presented statistics concerning the profession of Washington, showing that less than one-third of the physicians belong to the county societies, and that they are really not organized at all. The following interesting statistics were offered:

County—	Population	No. of Physicians	No. of per Physicians	No. of Members Medical Societies
Adams	12,165	8	1,500	
Asotin	6,642	6	1,100	
Chehalis	19,742	20	990	12
Clallam	6,131	5	1,200	
Chelan	9,383	10	930	
Clarke	18,281	13	1,400	
Columbia	7,834	11	700	
Cowlitz	8,500	10	850	
Douglas	12,136	10	1,200	
Ferry	4,786	1	4,786	
Garfield	4,985	6	800	
Island	2,690	3	890	
Jefferson	8,157	17	500	
King	185,574	269	750	112
Kittita	16,218	19	800	5
Kitsap	13,100	12	1,100	
Klickitat	9,321	8	1,150	
Lewis	23,842	16	1,400	13
Lincoln	19,321	27	720	
Mason	4,433	3	1,500	
Okanogan	12,945	7	1,800	
Pacific	8,081	8	1,000	
Pierce	87,308	98	820	58
San Juan	3,428	4	850	
Skagit	24,272	15	1,600	7
Snohomish	50,200	41	1,200	25
Spokane	95,854	138	700	69
Stevens	18,146	11	1,600	
Thurston	13,780	13	1,000	6
Wahkiakum	3,181	1	3,181	
Walla Walla	9,570	26		17
Whitman	44,057	49	950	23
Yakima	31,110	34	900	*
Whatcom	44,126	48	920	23
	874,310	967		373

*Yakima County has an organization but they have not yet reported.

Medical Legislation in the State of Washington was the title of a paper read by F. H. Luce, of Davenport. (See page 363.)

The Organization of the Medical Profession. This was an address delivered by Dr. J. N. McCormack, of Bowling Green, Ky., the National organizer of the American Medical Association. (See page 293, October issue.)

In discussing these papers and address, E. M. Brown said he believed the work as laid out was a practical one and its failure would be due only to the absence of action. He thought a great mistake is

the lack of harmony among medical men. If each would remember that his fellow is entitled to the same respect that he feels is due himself the community at large would soon have the like respect for the profession and we will find those willing and able to help us in the legislative halls. This will give a feeling and realization of strength, the lack of which in the past has been the cause of not doing more work. He believed that, if we get together and organize thoroughly, we will have more courage.

P. W. Willis said: My early medical education did not contain what has been given to this society tonight. It is invaluable. We ought to start on this line right now.

C. A. Smith said we now know what to do. We should go home and get to work on the physicians not in the societies. It is not a difficult problem if we will act as well as talk.

G. S. Peterkin said the Lord helps those who help themselves. He described the methods of the membership committee of the King County society and thought that, in time, it would have every man enrolled who was entitled to do so.

E. M. Brown spoke in favor of the appointment of some man especially to canvass the state, to get in touch with the profession in different sections and thus to bring them together. He enquired whether this would be practical.

Dr. McCutcheon stated that the A. M. A. had recommended the reception of all physicians into the county society. If the society refused to receive one, he had the right to appeal to the state association. But this Association had decreed that each county society should be the sole judge of its membership without farther appeal. He deplored this condition. He thought we ought to look after the counties without societies.

Dr. Essig stated that the amendments to the By-Laws empowered the Judicial Council to appoint an organizer for such work. He defended the action of this Association in making the county society the final judge of an applicant's fitness for membership, where he is known best. He did not believe in making this Association a reformatory. It is easy to get members in but not always easy to get them out. He thought this talk of the evangelist ought to make all feel better, in that there is a prospect of improving conditions. He hoped his talk would not end in simply arousing the emotions for a day or so.

G. A. Libby spoke in favor of the post-graduate work and believed that if this were instituted, it would aid in bringing all the doctors to the society and to the meetings.

K. B. Turner, of Seattle, thought it a mistake for the young doctors not to make the acquaintance of the older ones when they first come to town. They do not realize that the older men are willing and ready to aid the younger.

L. R. Markley, of Whatcom, said that what helped his county society most last year were visits from two prominent physicians from

another city who delivered addresses. Every eligible physician of Bellingham, except three, have been brought into the society.

R. L. Thomson quoted Dr. McCormack as saying the best doctors are the best people on earth but he did not mention that the worst doctors are the worst class of people on earth. He had such a hatred of insincerity and corruption that he could not put his hand under a scoundrel and place him before the people to practise medicine. He believed the aim of every one present was to give the very best possible care to his patients but he thought a good deal more could be accomplished along the lines suggested. After his county society meetings they nearly always have a luncheon which helps to keep the members in touch with each other.

Wilson Johnston said the medical colleges teach everything except how we should act toward other doctors, so that we don't know our duty toward the others in the community in which we locate. He believed a talk on this subject should be given every graduating class. He stated that his county society was composed of men clean, morally and physically. They have a by-law that no liquor shall be served at their banquets. He knew of no more disgraceful sight than a lot of physicians in a state of intoxication at a banquet. They have a co-operative library where each member puts his literature for the benefit of all. Thus the expence of journals is divided equally among all.

G. S. Libby defended the clergymen who had been spoken of slightly by several, mentioning the wife of one whom he recently attended in her seventh confinement who was pastor of a Spokane church, on a salary of \$600. He enquired how much of a fee he should charge that man.

Dr. McCormack closed the discussion by replying at length to the statements and questions of the different speakers.

FRIDAY, MORNING SESSION.

Dr. Essig lamented the absence of a Committee on Necrology and mentioned the deaths of several prominent members since the last meeting of the Association. He moved the appointment of a committee to draft resolutions to be placed on the records, to be sent to the families of the deceased and to the newspapers, and for any other duties that may devolve on such a committee. An amendment was proposed to make the number of the committee five, which was accepted by Dr. Essig. The motion carried.

The Auditing Committee reported the Treasurer's report audited and found correct.

In response to a call for report of the Judicial Committee, it was stated nothing had been done by it during the past year.

On motion of Dr. Sims it was voted that the President appoint a committee to select ten names of physicians to be recommended to the Governor from whom he should select men for appointment to the Examining Board.

The President reported for the Committee on Tuberculosis that, a year ago an appropriation of \$50 had been made for its work, none of

which had been spent. It was voted to continue the two living members of the committee, Drs. Yocom and Doolittle, and that a third be appointed by the President, in place of Dr. F. H. Coe, deceased, also that the appropriation of last year be continued and a similar amount be appropriated this year.

Annual Address of the President. President Yocom said the success of this meeting was due to the members and visitors who left their business and devoted their time to it. Special thanks were due to Dr. McCormack. He referred to the increased power conferred on the Judicial Committee in its organization of the profession and his feeling in favor of employing a state organizer. He favored the appointment of a Committee on Press and Public Information, to impart correct and accurate information to the public concerning the profession. He also thought it would be of great benefit if each county society had such a committee. He also suggested the appointment of a Committee on Legislation, whose duties would be indicated by the title.

Dr. Willis moved the appointment of a committee to act on the recommendations of the President which was duly carried.

It was voted that all papers prepared and not read should be presented to the Secretary, read by title, and treated as if they had been read.

Election of Officers. The Committee on Nominations reported the following nominations: President, Geo. Libby, Spokane; First Vice-President, L. R. Markley, Bellingham; Second Vice-President, L. M. Sims, Kalama; Secretary, C. H. Thomson, Seattle; Treasurer, A. de Y. Green, Tacoma; Delegate to A. M. A., N. Fred Essig, Spokane; Alternate, J. R. Yocom, Tacoma; Judicial Council, C. G. Brown, Spokane and W. C. Cox, Everett. It was voted that the nominations be closed and the Secretary cast the ballot for these nominees which was accordingly done.

It was voted that the next meeting be held at Spokane.

The following papers were read:

Sources of Infection and Manner of Contagion, of Acute Contagious Diseases of Children, by W. N. Hunt of Bellingham.

Duration of Danger of Contagion after above and Disinfection, by H. G. Lazelle, of Seattle.

These papers were discussed by E. E. Heg, H. Stillson, Drs. Perkins, Libby, Harrison, and Alice Smith, of Tacoma; Dr. Yenney, of Portland, H. M. Read, of Seattle; C. G. Brown, of Spokane; Wilson Johnston, of Colfax; Drs. Rynning, E. M. Brown and Wilson, of Tacoma.

The President called for the report of the committee appointed a year ago concerning raising the standard of trained nurses. Dr. Read stated that the opinion among the nurses seemed to be that this was a matter for them to decide among themselves and therefore it was dropped.

The President announced the appointment of the following committees:

Committee on Necrology: J. B. Loughary and C. H. Thomson, of Seattle; Chas. McCutcheon, of Tacoma; J. M. Semple, of Spokane; W. N. Hunt, of Bellingham.

Committee on President's Address: J. Sutherland, of Spokane; F. H. Luce, of Davenport; C. E. Case, of Tacoma.

Committee on Publication: C. H. Thomson and C. A. Smith, of Seattle; N. Fred Essig, of Spokane.

Committee to recommend ten names to the Governor for members of the Examining Board: C. W. Sharples and E. E. Heg of Seattle; H. W. Dewey and P. B. Swearingen, of Tacoma; J. M. Semple, of Spokane.

Committee on Tuberculosis: F. H. Luce, of Davenport. At the same time the President resigned from the committee and appointed R. M. Stith, of Seattle, in his place.

FRIDAY, AFTERNOON SESSION.

The Committee on President's Address reported, recommending that the President appoint a committee of five on Press and Public Information, also suggesting that a similar committee be appointed by county societies. They also recommended, in case the report be adopted providing for the Judicial Council assuming charge of matters of legislation, that no such committee be appointed. If this be not adopted that such be appointed. This report was adopted and the President appointed the following Committee on Press and Public Information: C. A. Smith and G. S. Peterkin, Seattle; R. L. Thomson and H. S. Martin, Spokane, G. S. Hicks, Tacoma.

The final report of the Committee on Revision of the By-Laws was given as follows: We recommend the following amendment to Chap. V:

CHAPTER V. Judicial Council.

Section 1. The judicial council shall be the board of censors of this association, shall consider all questions involving the rights and standing of members in relation to other members or the component societies or to this Association. All ethical questions shall be referred to the Judicial Council without discussion. Their report upon these matters to be submitted to the Society for final action.

Sec. 2. The Judicial Council shall have the power to employ a state organizer for the purpose of organizing county societies and, if deemed desirable, said organizer shall visit each society at least once during each year. In such sections where deemed desirable two or more counties may be organized in the one society with a hyphenated name of the individual counties. The Judicial Council is hereby given the power to grant charters to such societies, such charters to be signed by the President and Secretary of this Association.

Sec. 3. The Judicial Council shall have full power to act on all matters concerning the business of the state Association in the interval between the meetings, their action upon such matters to be reported to said Association subject to its approval.

Sec. 4. This Council shall have a supervision of medical legislation and act on matters of public policy.

Sec. 5. Funds for the maintenance of this Council for each following year shall be appropriated at the annual session of this Association and the amount of expenditure limited by the Association.

Sec. 6. Chapter 5, sections 1 and 2, as they now exist in our by-laws, are hereby revoked, and are replaced by this section.

We also recommend that Chapter 3, section 2 of the by-laws be amended to read as follows:

The Association on the first day of the annual session shall elect a committee on nominations consisting of one member from each county whose society is represented at that meeting, etc.

That Chap. 4, Sec. 4, after the word "arrangements" in 17th line from top the following shall be inserted:

"It shall be his duty to secure and report to this Association all deaths of members occurring during the current year and arrange for suitable notices and resolutions appropriate for placing upon its records."

After discussion of some features of the report, it was adopted as presented.

The President appointed Drs. Hicks and Willis to escort the newly elected President Libby to the chair who expressed his pleasure at the honor conferred on him and complimented the retiring President on the successful meeting which he had inaugurated and carried through.

The following papers were read:

Sources of Infection of Typhoid Fever, by J. M. Semple, of Spokane.

Diagnosis of and Differential Diagnosis of Typhoid Fever, by R. M. Stith, of Seattle.

Public and Professional Indifference; Prophylaxis in Rural Districts, Small Towns and Cities, by E. E. Heg, of Seattle.

City and Town Water Supply, as bearing on Typhoid Fever, by R. Bebb, of Tacoma.

The report of the Committee on Prophylaxis of Venereal Diseases was presented by G. S. Peterkin, of Seattle. At its conclusion it was voted to continue the committee and that the appropriation for it be increased to \$100.

The discussion on the papers relative to typhoid fever followed, by H. Stillson, E. E. Maxey, I. Janson, W. Johnston, P. Frank, C. Balabanoff, H. G. Lazelle and the essayists.

The following papers were read:

Prevention and Control of Spread of Tuberculosis, by J. Sutherland, of Spokane.

Sources and Manner of Infection of Tuberculosis, by F. S. Bourns, of Seattle.

Prevention of Tuberculosis by Educational Methods, by W. Johnston, of Colfax.

Prevention of by Laws and Ordinances and by Compulsory Notifi-

cation of Health Authorities of Cases of Tuberculosis, by I. Janson, of Seattle.

Prevention of Auto-Infection and Complications, by H. Power, of Spokane.

The following papers were read by title which the lack of time prevented reading in full:

Early Diagnosis of Malignant Disease of Lip and Tongue, by T. F. Smith, Tacoma.

Of Stomach, by E. C. Wheeler, Puyallup.

Of Rectum, by S. Sargentich, Tacoma.

Of Breast, by J. W. Bean, Tacoma.

Of Uterus, by C. A. Smith, Seattle.

Treatment of Fractures of Femur, by H. E. Allen, Seattle.

Surgical Treatment of Infection, by J. E. Harris, Seattle. (See page 305, Oct. issue).

Intestinal Paralysis, by W. H. Axtell, Bellingham.

On account of the lateness of the hour the reading of more papers and discussions were prevented.

The meeting adjourned to the banquet of the Pierce County Medical Society at the Country Club, after passing resolutions of thanks to the Pierce County Society for entertainment, the Tacoma Hotel management, to Dr. McCormack for his presence and uplifting address and the American Medical Association for sending him to this meeting.

KING COUNTY MEDICAL SOCIETY.

President, J. H. Lyons, M. D.; Secretary, C. H. Thomson, M. D.

The regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of Nov. 6, President Lyons being in the chair. Fifty members and visitors were present. J. D. Guthrie, C. E. Guthrie, Arthur Jordan and C. D. Wood were elected to membership.

A letter was read requesting the endorsement of this society of a petition to President Roosevelt for the appointment of a medical Examining Board for the Territory of Alaska. After some discussion as to the advisability of such action at this time, it was voted that the President and Secretary write such a letter, containing the society's approval.

In response to a communication from the Chamber of Commerce, requesting the appointment, by this society, of a representative on its charity endorsement committee, to work in connection with other business and commercial bodies, the President was instructed to appoint such a representative. He designated C. A. Smith.

Silver Plate for Fracture of Skull. F. M. Carroll presented a patient into whose skull he had fitted a silver plate to cover an opening resulting from the kick of a horse 8 years ago.

Polycystic Kidney. C. A. Smith presented the bladder, with kidneys attached, of a man of 65 who had exhibited hematuria for two years

and died of anemia and exhaustion. The hemorrhage was supposed to come from the bladder till the autopsy showed it to be from the right kidney. He gave a description of this condition and the theories of its origin.

Sarcoma of the Ovary. J. E. Harris exhibited this specimen, from a woman of 24 years.

Biliary Calculi. Dr. Harris exhibited a bottle containing between 500 and 600 stones recently obtained at operation from the gallbladder.

Typhoid Ulcer of the Gallbladder. C. W. Sharples read this paper of the evening, accompanied by specimens of the gallbladder and sections of the ileum, with ulcers presenting.

The second regular semi-monthly meeting of the King County Medical Society was held at the Seattle Chamber of Commerce, on the evening of Nov. 20, President Lyons being in the chair. Fifty members and visitors were present.

H. M. Read stated that a certain milk man claimed to have his milk certified by the King County Laboratory and he explained that no milk was thus certified. Dr. von Phul moved that a committee of three be appointed to report, at the next meeting, a plan for the society to certify milk that has been properly tested. This being carried the President appointed Drs. Read, Sweeney and Carrol.

F. B. Whiting presented a specimen of a fracture of a 3d. cervical vertebra.

Observations from the Mayo Clinic. G. M. Horton delivered an address on this subject, detailing his experiences and observations of several weeks spent at this clinic. A discussion followed by Dr. Yocom, of Tacoma, and several members.

Impressions from a Recent Trip Abroad. W. C. Gibson addressed the society on this subject, the result of a recent trip abroad.

RECENT PROGRESS IN MEDICINE AND SURGERY.

INTERNAL MEDICINE.

Edited by

C. W. SHARPLES, M. D.; H. M. READ, M. D.

Arteriosclerosis, by Ewart, *Progressive Med.*, Vol. III., Sept., 1905.

Ewart's review of the situation is one of much practical interest and worthy of careful perusal. He refers to Erlenmeyer's point of diagnosis between the early manifestations of cerebral arteriosclerosis and neurasthenia, viz, the symptoms of the first being intensified by temporary exertion, straining, etc., the latter being relieved by the same.

Under treatment of arteriosclerosis he mentions Erlenmeyer's treatment by the iodides of sodium and potassium, beginning with a moderate dose of equal parts of each with 3 gr. increase every fourth day, until 80 gr. daily are taken. This is to be continued until 300 to 500 gr. of the drug have been taken and then shorter courses of these two drugs to be taken every year or oftener. Sodium bicarbonate in one dram doses with each dose of the iodide and avoidance of acid food, aid in preventing iodism. Next to the iodides Erlenmeyer regards the

Nauheim baths as very effective when the blood pressure is not very high.

Truncceek's serum has been injected by De Silvestri and in larger doses, viz, daily instead of twice a week, and progressively increased up to 10 cc. The effect of this was to always relieve the high tension and the associated bad symptoms.

The dangers from apoplexy in cases of arteriosclerosis can, according to Allbutt, be foretold by the condition of the pulse, and, if recognized early, the causes which lead to degeneration of the vessels might, in a large measure, be prevented. Chief among which causes are excessive or deficient exercise. Every adult, according to Albutt, should have his blood pressure measured at regular intervals by the best instruments obtainable; if a persistent rise in the arterial pressure be found he should at once reverse his mode of living. Ewart very rightly remarks that the wisdom of this advice cannot be doubted. Neither can it be disputed, he says, that the multiplication of the methods of diagnosis and treatment by machinery has its drawbacks. The machine does its work and returns a mathematical answer. It thus happens that the instrumental findings are at best an approximation, and that its chief value lies in the faithfulness of its record, which may be more or less changed by the artificial conditions of the experiment. He warns against the moral effect the use of the instrument might have upon the patient, should the ghost of arterial degeneration be paraded before him after its discovery by the use of the mechanical pulse gauge.

It is pointed out in this valuable review how we may very materially contribute to longevity and comfort in the aged by devoting more consideration to the prevention, diagnosis and treatment of arteriosclerosis.

READ.

Diet in Cure of Diabetes Mellitus, By Friedenwald and Ruhrah. *Am. Journ. Med. Sciences*, Oct., 1903.

This very instructive article should be carefully read by anyone interested in the treatment of the disease in question.

After opening the subject with von Noorden's assertion that the medicinal treatment of the disease is a side issue and, along with the bath cures can only be practised with great danger, even for a short time, and that in diet alone do we possess the remedy which fulfills the indications for treatment, namely the maintenance of nutrition, the increase in the ability of the body to assimilate sugar and the avoidance of complications, the authors then review the three principal so-called cures, viz, the milk, the potato and the oatmeal. They cite cases illustrative of the success of each and bring out the various combinations of diets in a comprehensive way.

The potato cure of Mosse, which was reviewed in *NORTHWEST MEDICINE* about two years ago, they do not give in full but what they give as a modification and used in the cases treated will be found valuable, and at the outset of the potato cure they give the essentials of the Mosse treatment, viz, replacing all carbohydrates by potatoes (baked)

for several weeks. They make the point that each case be carefully studied by itself and no rule should be applied to each case. The entire article should be carefully read as a review cannot do it justice.

READ.

Report of the Committee on the Influence of Climate in Pulmonary Tuberculosis. Med. News, Nov. 11, 1905.

This report is rather a synopsis of the basis of faith in climato-therapy in tuberculosis. Climate is not a panacea of mysterious powers, nor should the patient be indiscriminately sent from home to one climate simply on account of its reputation.

Park Weber has defined climate as, "A combination of various conditions of the atmosphere and earth's surface determining the suitability of a region or site for the life and health of animals and plants," and climato-therapy as, "The utilization of climate to promote the comfort or recovery of the sick or to prevent the development of disease."

W. L. Dunn says, "That a climatic resort is a place where there is a maximum of sunshine and relatively few hours of rainfall, relatively low humidity, great purity of the atmosphere and an opportunity for efficient medical supervision." The elements which in climate have a beneficial influence are, first, abundance, and bacteriologic and chemical purity of the air. Secondly, sunshine. Third, coolness or, in a certain number of cases, warmth. Fourth, dryness or, in a few cases, a moderate degree of humidity. Fifth, altitude. Sixth, wind. Seventh, equability. Eighth, soil. Streptococcal and mixed infection advance many cases of pulmonary tuberculosis on to a distinct consumption. Some cases relapse no doubt by reinfection of the lungs, by a return to the city. The influence of sunshine keeps up the patient's spirits. Dryness is helpful through its purifying the air, providing there is sufficient vegetation to prevent dust storms. Some degree of altitude has a stimulating effect on the metabolism. Upon the temperament of the patient all depends to a large extent the results. A patient should all the time be kept under the observation and direction of a competent medical attendant.

SHARPLES.

MENTAL AND NERVOUS DISEASES.

Edited by

J. B. LOUGHARY, M. D., SEATTLE; W. T. WILLIAMSON, M. D., PORTLAND.

Brain Injuries. By D. C. Peyton, M. D., Journ. A. M. A., Oct. 14, 1905.

Peyton calls attention anew to the important question of immediate operative interference in brain injuries. The early symptoms are often misleading, in that they may indicate more or less than is developed by subsequent symptoms. The varied significance of unconsciousness, in its degree and manner of approach, the history of the trauma and its proximity to the middle meningeals, and the determination of the probabilities as to the unconsciousness being caused by hemorrhage on the one hand, or concussion or contusion on the other, are points calling for early decision. But manual skill is possibly of less consequence than is the knowledge possessed by the surgeon of

cerebral localization. No competent brain surgery can be performed without the knowledge of the various areas of motion, and the special senses. In doubtful cases it is safer to operate. "The danger to the patient of an exploratory opening with an observance of the highest degree of aseptic technic, is infinitely less than the unreasonable delay frequently permitted while waiting for definite diagnostic symptoms."

WILLIAMSON.

Periodic Paralysis, By G. E. Holtzapple, M. D., Journ. A. M. A., Oct., 21, 1905.

The literature of periodic paralysis is enriched by a contribution from Dr. Holtzapple, who enjoyed the privilege of twenty-two years' practice, in a family of four generations, in seventeen of whom these recurrent paralyzes were present, and six of whom died in an attack. The attacks were in some instances daily, sometimes at intervals of months or even years; frequently partial, but a typical case involved all the voluntary muscles, except those of the face, eyes, tongue, speech, deglutition, and, peculiarly enough, the sphincters of the rectum and bladder; often absolute helplessness involving even the respiratory powers, with an abolition of the reflexes and of the faradic excitability. Of the points of great interest in these cases, the following may be selected: (1) The hereditary nature of these attacks, as indicated by the fact that each one affected had either a father or mother subject to seizures of paralysis or hemicrania, or both.

(2) The alternation with, or interdependence between, the paralysis and migraine, the latter frequently preceding the former for years, and often being substituted for the paralysis in a periodic series. (This recalls the claim of the late Landon Carter Gray as to the interchangeable relationship between migraine and epilepsy).

(3) The gravity of the attacks, sometimes ending fatally, with evident and complete recovery, however, as the rule, establishing the condition being "functional" in its pathology.

(4) The determination of the presence of the "reaction of degeneration" in severe attacks, yet followed by prompt and apparently perfect recovery.

(5) The absence of any psychic involvement, even in the cases which went on to a speedy death.

WILLIAMSON.

Ataxia of Central Origin Appearing in Childhood, By A. W. Fairbanks, M. D., Journ. A. M. A., Oct. 7, 1905.

The writer calls attention to the existence of a disease akin in symptomatology to what is usually known as Friedrich's disease, and yet presenting variations which distinguish it from both that and Marie's disease. Indeed, he furnishes good evidence for doubting any genuine differentiation that justifies the existence of the two diseases, named after Friedrich and Marie respectively. The alleged differences, especially in age of onset and the condition of the knee-jerks, are shown to be not borne out by either clinical or pathologic facts. Indeed,

the presence or absence of the knee-jerk, in itself alone, is of no differential diagnostic value, only indicating whether the process has involved certain definite nervous structures. This article seems reasonable and logical, and its chief point of interest lies in its being the fourth swing of the pendulum of advancing knowledge in forty-five years, first Duchenne, then Freidrich, then Marie and now Fairbanks.

WILLIAMSON.

Cerebral Traumatism, Ending Fatally.

Dr. F. Cauthorn, of Portland, Ore., has reported an interesting case of cerebral traumatism, resulting fatally. A woman received an umbrella thrust into the left orbit by way of the inner canthus. The point passed upwards, backwards and very slightly inwards, penetrating the orbital plate of the frontal just in front of the lesser wing of the sphenoid, and opening into the posterior ethmoidal cells. It entered the posterior portion of the frontal lobe of the brain, penetrating for an inch and a half into the base. There was profuse hemorrhage covering the whole base of the brain and the cortical portion of the frontal lobe. The general symptoms were in brief those typical of cerebral compression. The left pupil was widely dilated, the right contracted. The localized symptoms of a wound were some degree of orbital ecchymosis with protrusion of the eye-ball. The practical points were that there was no evidence of external hemorrhage, and that the wound in the conjunctiva through which the umbrella point had passed, was not detectable by any ordinary examination.

WILLIAMSON.

BOOK REVIEWS.

Edited by

KENELM WINSLOW, M. D.

Green's Pathology. Tenth edition. A text-book of Pathology and Pathological Anatomy. By T. Henry Green, M. D., F. R. C. P., Consulting Physician to Charing Cross Hospital, London. New (10th) edition. Thoroughly revised by W. Cecil Bosanquet, A. M., M. D., F. R. C. P., Assistant Physician to Charing Cross Hospital. Octavo, 606 pages, 348 engravings and a colored plate. Cloth, \$2.75, net. Lea Brothers & Co., Publishers, Philadelphia and New York, 1905.

The tenth edition of this book is in all respects up to the standard of previous editions. Considerable new material has been incorporated. The chapters on Parasites, Infective Diseases, Intoxication and Auto-intoxications are well up to date, embracing the most recent views of pathologic investigation. The work is written in such a clear and pleasing style that it cannot fail to continue to gain in popularity. It covers both general and special pathology in a concise manner and should be of great use to students and the busy practitioner, in that it contains the meat of these subjects in such a compact form. The paper and text are good and there are many illustrations, some of which are new and reproductions of original photographs. LAZELLE.

Hare's Therapeutics. A text-book of Practical Therapeutics, with Especial Reference to the Application of Remedial Measures to Disease and their Employment upon a Rational Basis. By Hobart Amory Hare, M. D., B. Sc., Professor of Therapeutics and Materia Medica in the Jefferson Medical College of Philadelphia, Physician to the Jefferson Hospital, etc. New (11th) edition, enlarged and thoroughly revised to accord with the eighth decennial revision of the U. S. Pharmacopœa, 1905. In one octavo volume of 910 pages, with 113 engravings and four colored plates. Cloth, \$4.00, net; leather, \$5.00, net; half morocco, \$5.50, net. Lea Brothers & Co., Philadelphia and New York, 1905.

The popularity of this work is attested by the fact that it is the 11th edition put forth within 15 years but, to those unfamiliar with the book, a short description may not be out of place.

The therapeutic side of pharmacology is that emphasized. The description of the physical properties, sources, and physiologic actions of drugs is necessarily abbreviated, while the latter 266 pages are devoted to the treatment of the more common maladies. The arrangement of drugs and diseases in the book is according to the alphabet.

Special sections are given to treatment—other than by drugs—which include the following: Feeding, acupuncture, antiseptics, antitoxins, cold, cupping, counter-irritants, enteroclysis, gavage, heat, hypodermoclysis, rest cure, mineral springs, climate, suspension, transfusion, venesection, inhalations, kataphoresis, intravenous medication, Freusel's co-ordinated movements of tabetic ataxia.

The work has been arranged according to the late edition of the U. S. P. and is very useful for speedy reference in therapeutic matters. Perhaps the symptomatic side is too much in evidence in the therapeutics but the work has an enormous sale and is certainly thoroughly practical and valuable for every-day use.

WINSLOW.

The Blues (Splanchnic Neurasthenia), Cases and Cure. By Albert Abrams, A. M., M. D. (Heidelberg), F. R. M. S., Consulting Physician. Denver National Hospital for Consumptives; The Mount Zion and The French Hospitals, San Francisco; President of The Emanuel Sisterhood Polyclinic; formerly Professor of Pathology and Director of the Medical Clinic, Cooper Medical College, San Francisco. In cloth. 254 pp, illustrated, \$1.50 postpaid. E. B. Treat & Co., 241 W. 23d St. New York. Second edition, enlarged.

This is the second edition of the work we reviewed a year ago in *NORTHWEST MEDICINE*. In it we find much that is original in thought and investigation. The chief motive of the work is directed toward a solution of abdominal troubles resulting from neurasthenia. The writer attributes the symptoms largely to congestion of the intra-abdominal veins, due to impairment of the abdominal muscles from numerous causes.

He elaborates his theory in a thoroughly scientific spirit and adduces much experimental and clinical evidence to support it. The practical value of the book is great as methods of cure, mainly through appropriate exercises, are clearly detailed. In the Appendix may be

found a valuable contribution to the methods of exploration of the chest and belly, in which the worth of special signs and the use of new methods are explained.

WINSLOW.

International Clinics, Vol. II. Fifteenth Series. 1905. \$2.00. J. B. Lippincott Co., Phila.

In the present volume of this well-known publication we find sections on Treatment, Medicine, Surgery, Neurology, Dermatology and Syphilis; Rhinology, Ophthalmology and Pathology.

Among noteworthy articles we may chronicle, The Therapeutic Influence of the Roentgen Rays, by Johnston, of Pittsburg. This is an extended paper and treats particularly of the influence of radiotherapy on lupus, scrofuloderma and malignant growths in various parts of the body. He presents the results in a rather more favorable light than the general impression of such treatment would lead us to expect, and shows that the method pursued and the man behind the machine have as much to do with the success and non-success as in surgical treatment. While radiotherapy is not extolled above surgical measures in the diseases referred to, in all cases, yet the article presents its results by one who strongly believes in its efficiency. His reasons for this faith certainly have weight and are well worth reading. A conservative and exhaustive review of the status of Serumtherapy is written by Wainwright, of New York. Crothers has a monograph on Injuries and Lesions following the ~~Excessive~~ Use of Alcohol which, like all his contributions, has much of practical value and interest. Wight, of New York, writes on Fractures of the Patella and studies the whole matter in a careful manner, reporting a large number of detailed cases. He shows immediate operation is more apt to be followed by sepsis than operation delayed until the more acute symptoms have passed. An article by Luke, of Edinburgh, on Ethyl Chloride. Its value as a General Anesthetic, is well worth taking to heart. He says it is the ideal anesthetic for minor and short operations, as but 25 seconds are required to induce complete euthanasia. A closed inhaler is necessary however, the ethyl chloride being sprayed into a rubber bag, except the agent be used simply to begin anesthesia—which is to be sustained by ether—when it may be simply sprayed on a folded pad of gauze or napkin laid over the patient's mouth. Ten deaths in all have been reported in literature and are detailed, following the use of ethyl chloride. The drug appears to be largely coming into use for the purposes recommended by the author, and, when used properly, appears to be a safe agent. Death occurs usually by failure of respiration. The reviewer would suggest—inasmuch as the publishers ask for such suggestions—that International Clinics might be improved, if each volume were practically a symposium on a single morbid condition or on a group of allied diseases. In this way the volumes would be treasured highly as books of reference, containing the latest knowledge on the topic and would form a very valuable reference library. Another innovation might be reports on actual clinical progress from some of the large centres. Such knowledge men often travel thousands of miles to get, as witnessed by the constant pilgrimage to

the Mayos', who are demonstrating the greatest advance in surgical methods; almost from month to month.

A regular reporter could be secured probably there, at Johns Hopkins, and in Chicago, New York, and Boston to report, not medical gossip, but actual new methods of doing things to better advantage. At present, while International Clinics is a valuable repository of medical papers, it is not so different from a medical journal devoted to the discussion of general medical subjects—except that it is larger and the material more elaborately presented in a more permanent form.

WINSLOW.

Physician's Visiting List. P. Blakiston's Son & Co., Phila. Price \$1.

This is a very convenient and complete pocket visiting list. Beside the usual spaces for entry of visits, it presents a digest on incompatibility, treatment of poisoning and dose table. It is published in different sizes to accomodate corresponding classes of practice.

REPORT OF CONTAGIOUS DISEASES.

TO THE WASHINGTON STATE BOARD OF HEALTH FOR SEPT., 1905

Counties.	Smallpox		Scarlet Fever		Diphtheria		Typhoid Fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Adams	0	0	0	0	9	2	9	0
Asotin	0	0	0	0	0	0	3	1
Chelan	1	0	0	0	0	0	1	0
Clarke	0	0	0	0	0	0	4	0
Columbia	0	0	0	0	7	0	11	0
Cowlitz	11	0	6	0	0	0	0	0
Douglas	0	0	0	0	0	0	4	0
Garfield	0	0	0	0	0	0	11	0
Jefferson	0	0	7	0	0	0	2	1
King	0	0	16	0	1	0	8	0
Kitsap	0	0	0	0	1	0	2	0
Kittitas	0	0	2	0	0	0	13	0
Klickitat	0	0	0	0	0	0	22	0
Lewis	2	0	0	0	1	0	8	0
Lincoln	0	0	0	0	0	0	20	5
Pacific	0	0	0	0	0	0	1	1
Pierce	0	0	1	0	2	0	2	0
Skagit	0	0	0	0	0	0	13	0
Spokane	0	0	0	0	3	1	15	0
Stevens	0	0	0	0	0	0	7	0
Walla Walla	0	0	0	0	2	0	18	3
Whitcom	4	0	0	0	0	0	0	0
Whitman	1	0	3	0	1	0	12	1
Yakima	0	0	1	0	0	0	64	1
Bellingham	26	0	4	1	0	0	3	0
Seattle	1	0	5	0	6	0	0	10
Spokane	1	0	0	0	4	0	40	13
Tacoma	2	0	4	0	9	2	5	9
Total	49	0	49	1	46	5	298	44
October, 1904	1	0	61	0	109	10	325	24
Total, 1905	130	3	611	13	658	61	1431	131
Same period, 1904	287	9	923	36	970	125	995	120

ELMER E. HEG, Secretary.

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